

ThoughtWorks®

EVOLVE OR DIE

The Changing Role of the Enterprise Architect in the Modern Age

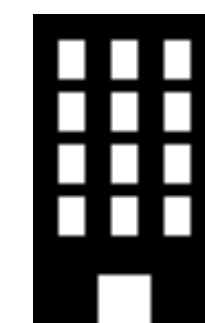
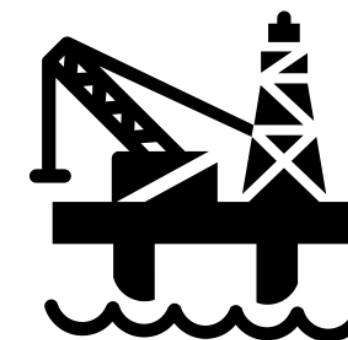
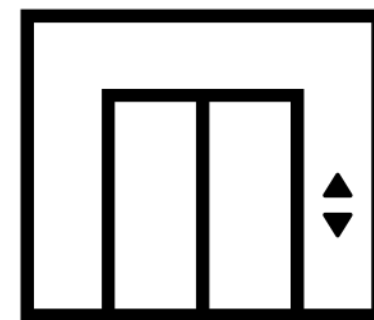
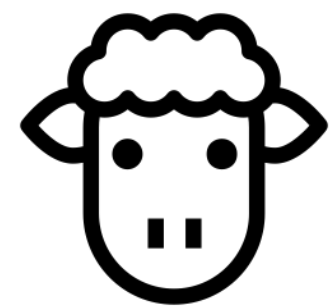
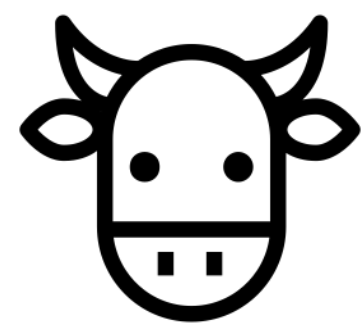
19th May 2018

ME

- Head of Things @ ThoughtWorks UK

- Enterprise Architect

- >10 yrs IoT Problem Solving experience in:

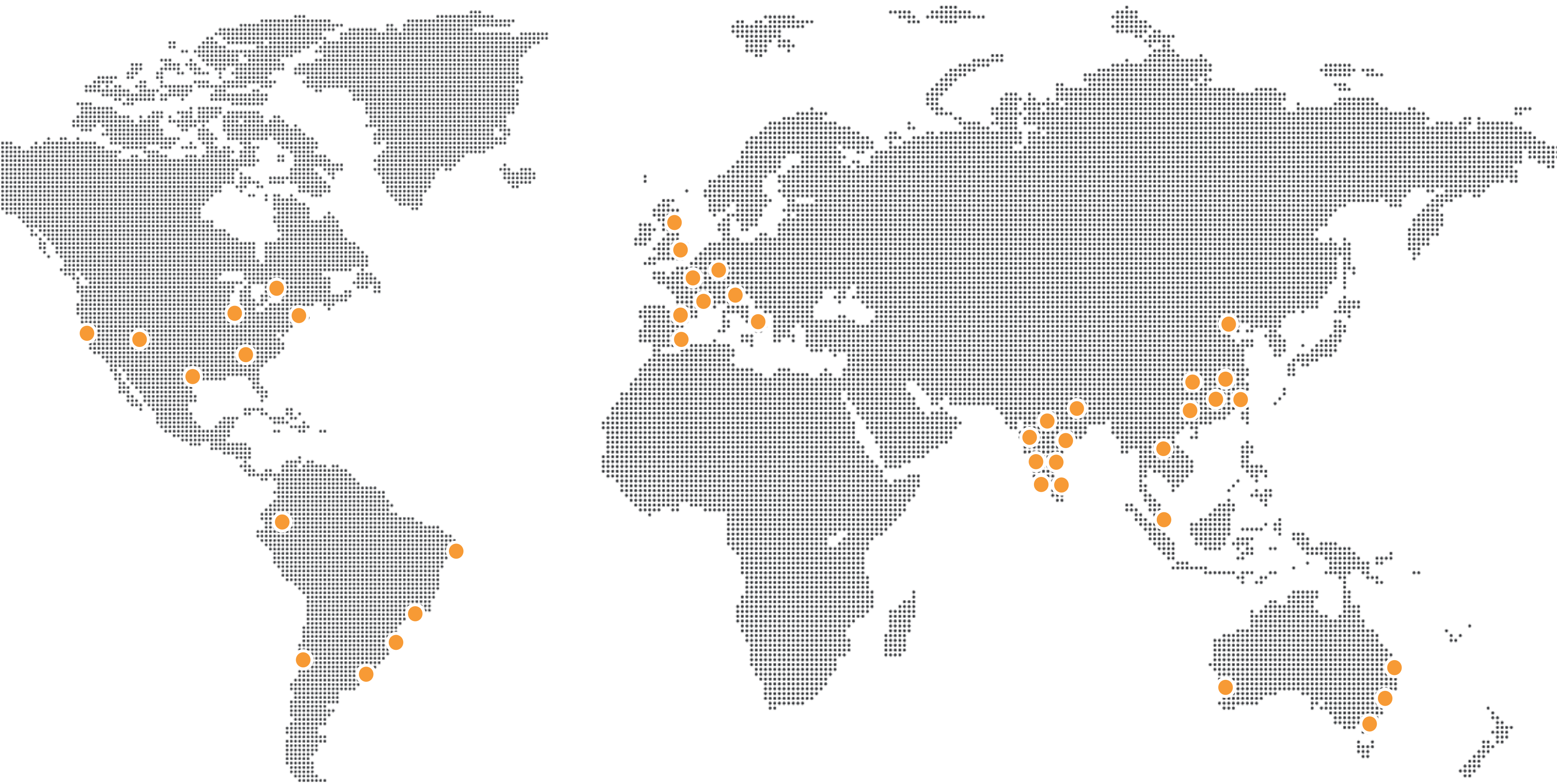


Tom Glover



WHO ARE THOUGHTWORKS?

We are a global business with a local presence



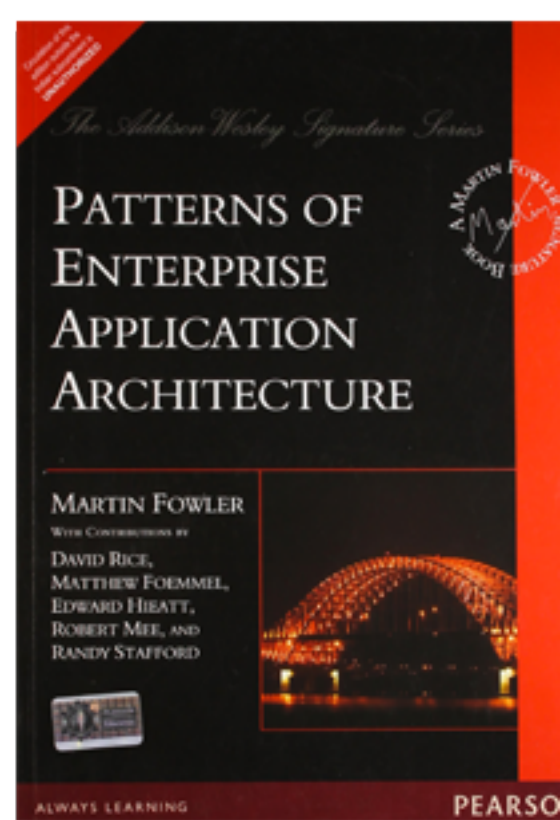
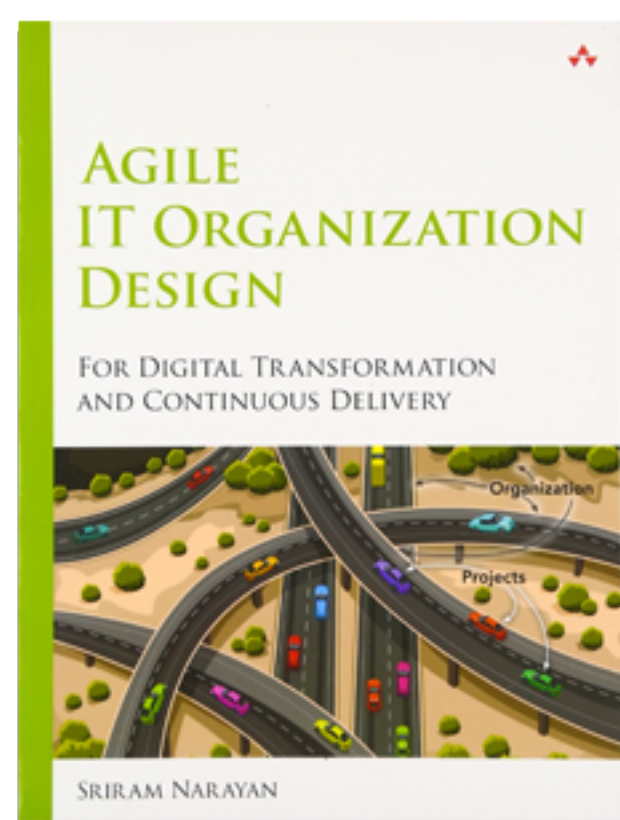
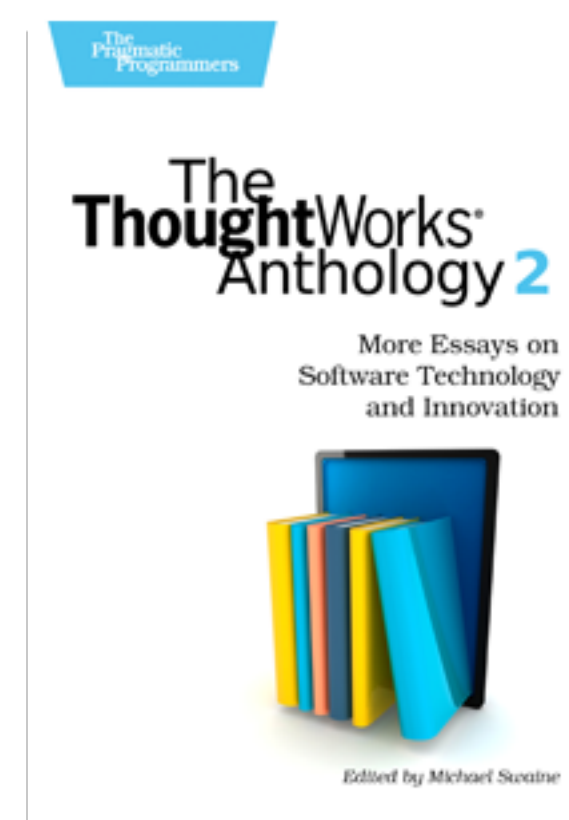
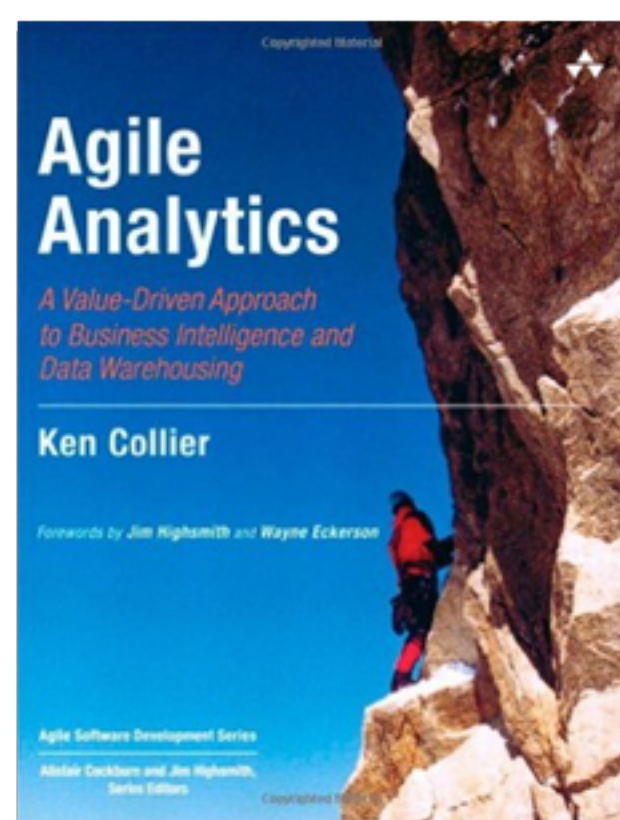
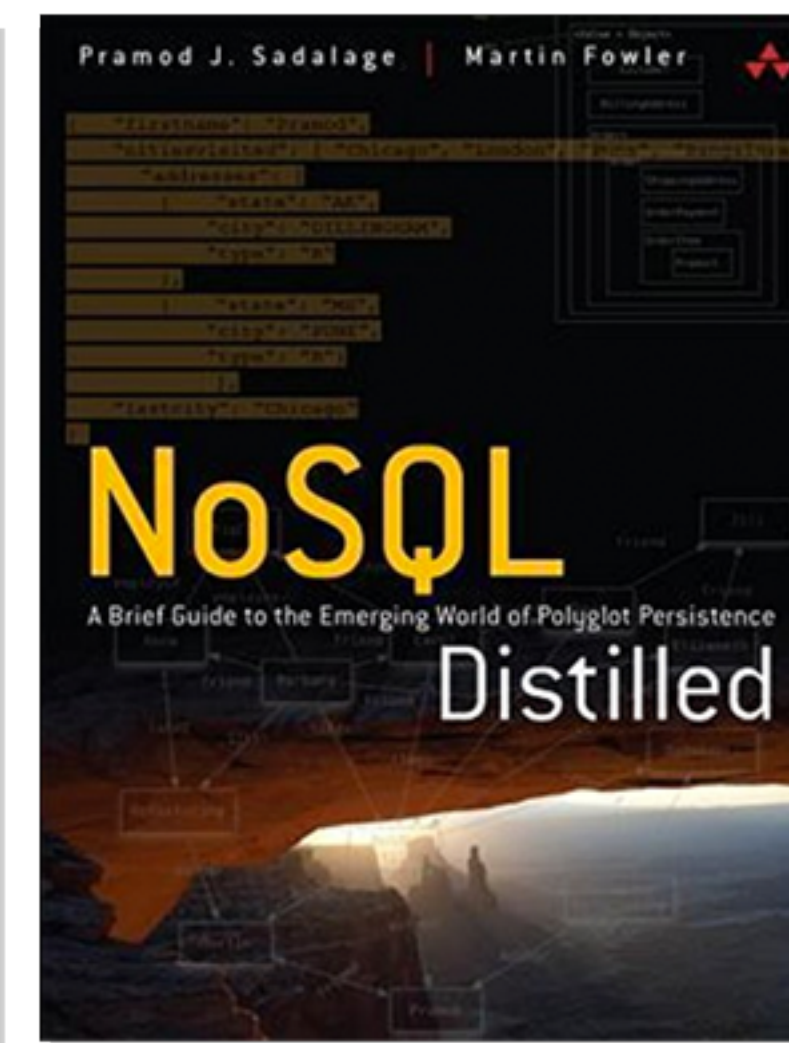
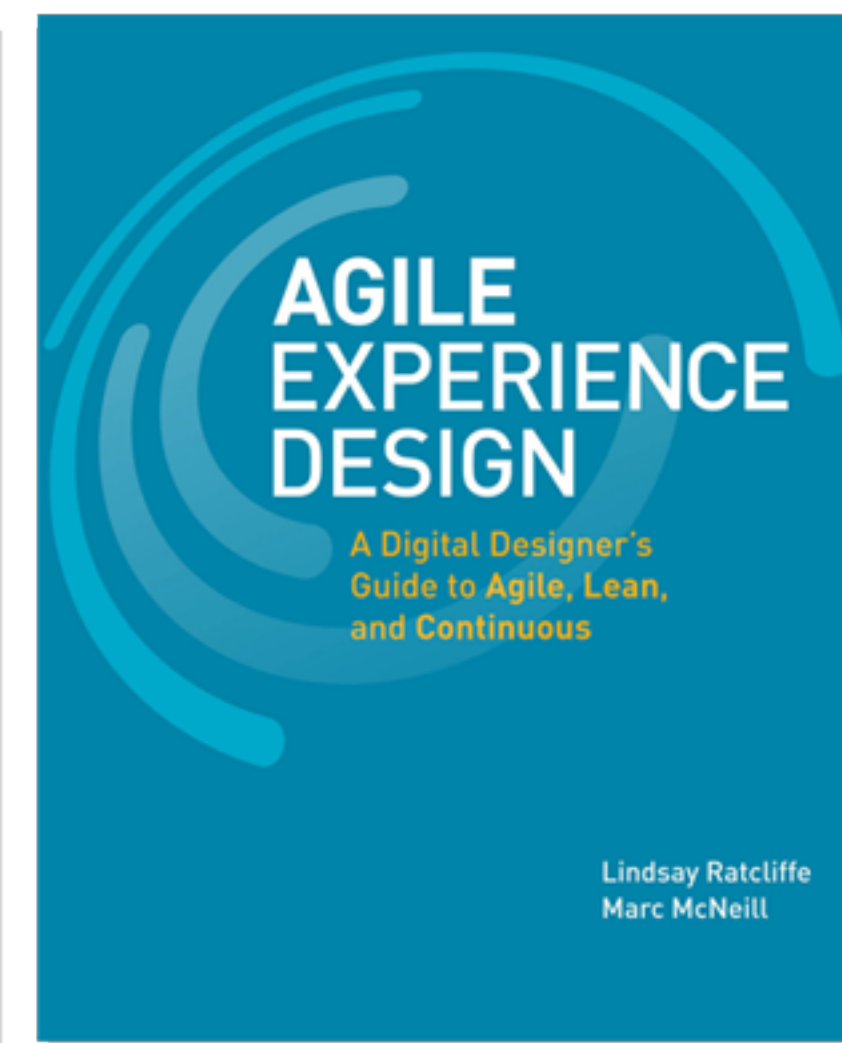
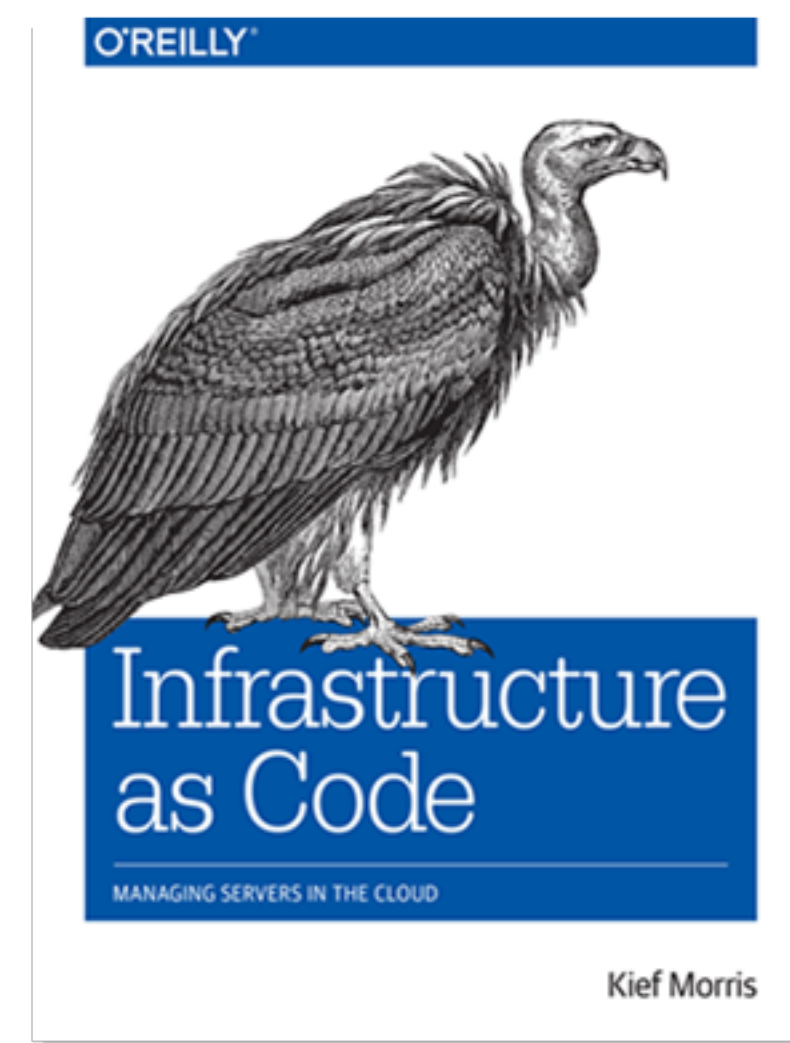
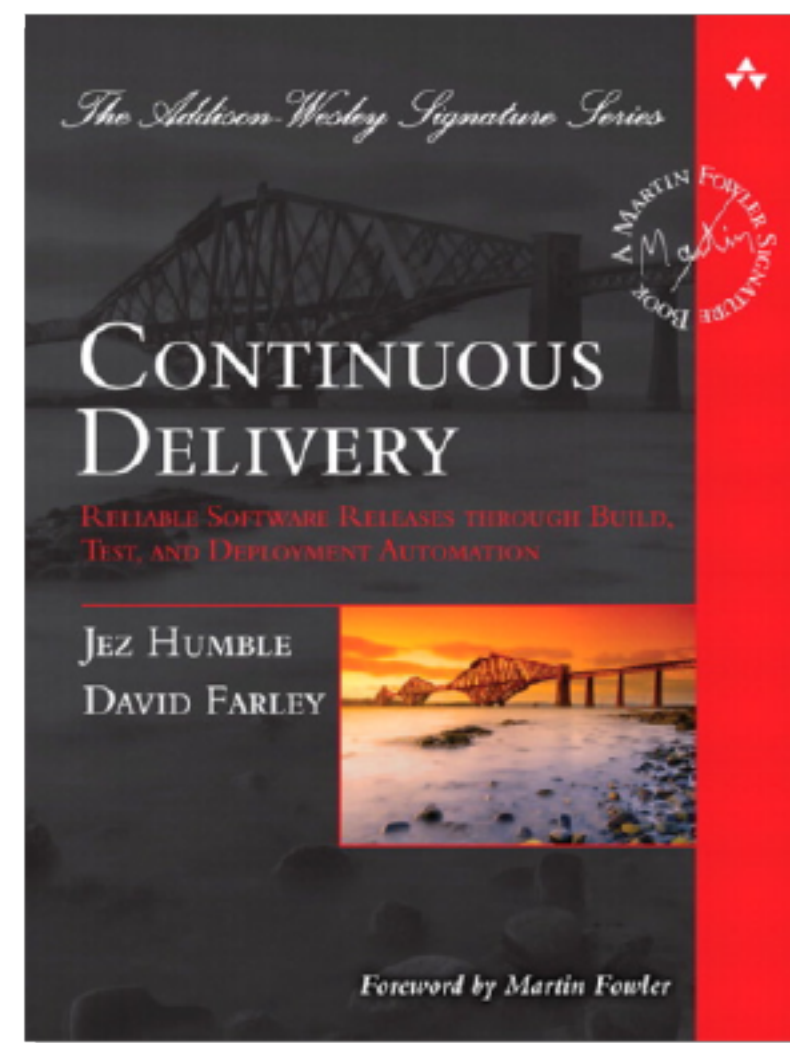
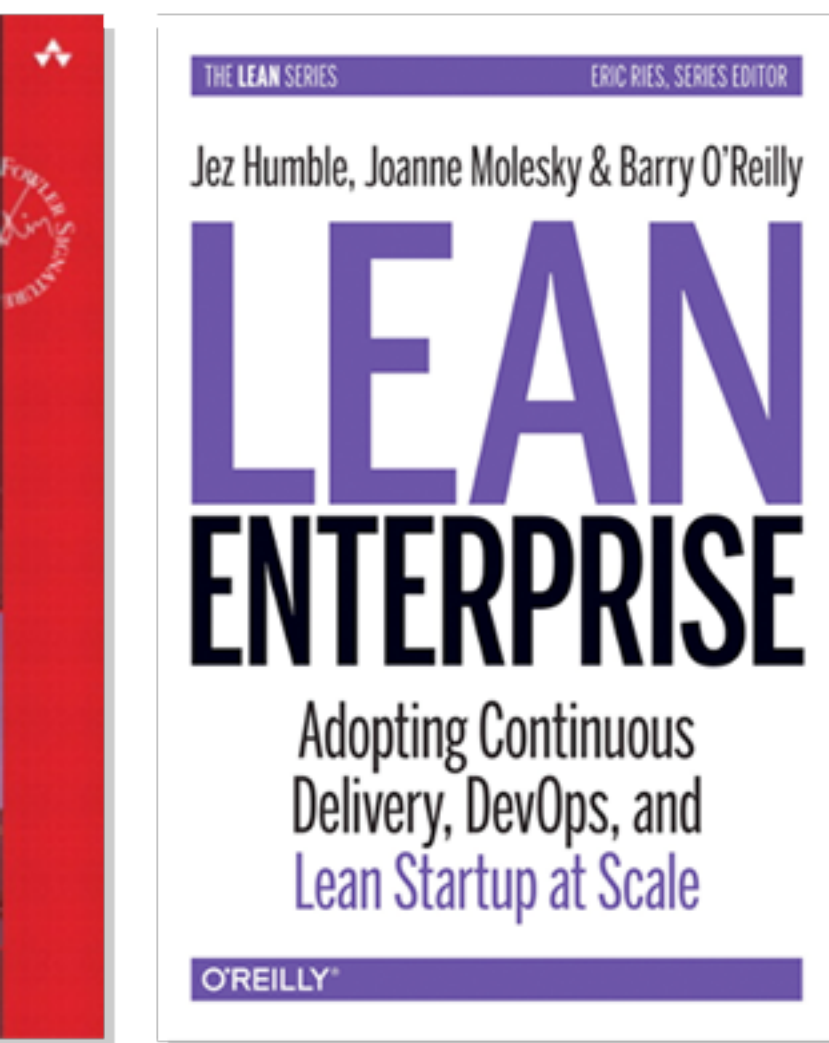
5,000+
Employees

14
Countries

41
Offices

25
Years

Our experiences are encapsulated in 80+ books



INTRODUCING THOUGHTWORKS

We are a global community of passionate technologists.


Our mission is to better humanity through software and help drive the creation of a more socially and economically just world.



We are partners and advisors to enterprise executives who transform their businesses with technology

what is an Enterprise Architect?

Architect

[ahr-ki-tekt] 

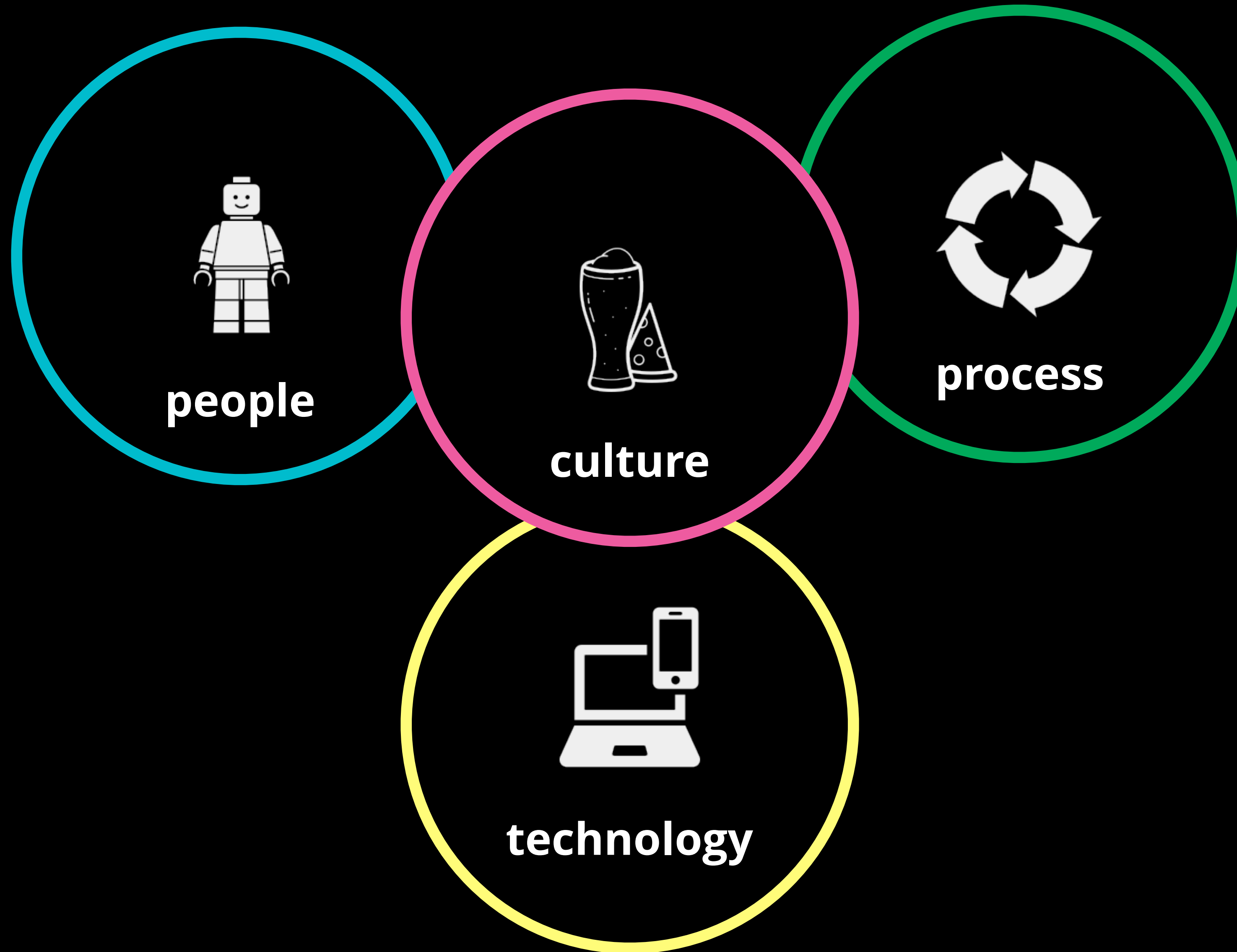
Someone who does precision guesswork based on unreliable data provided by those of questionable knowledge.

See also: wizard, magician

**“You Keep Using That Word, I Do
Not Think It Means What You
Think It Means”**

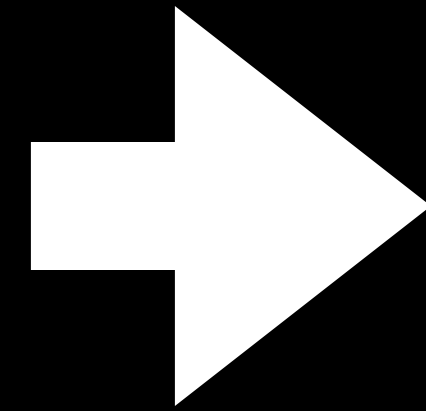
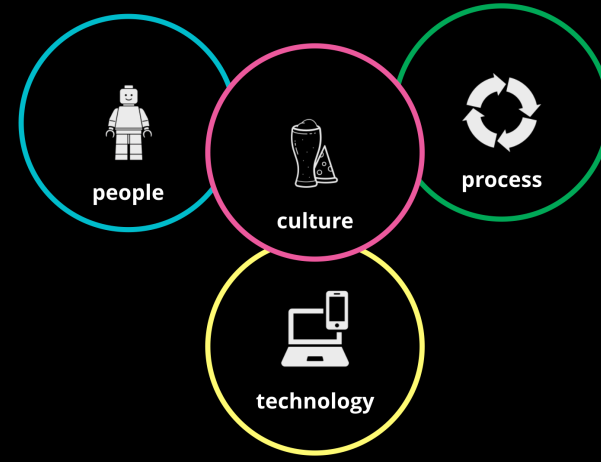
Inigo Montoya

Organisation

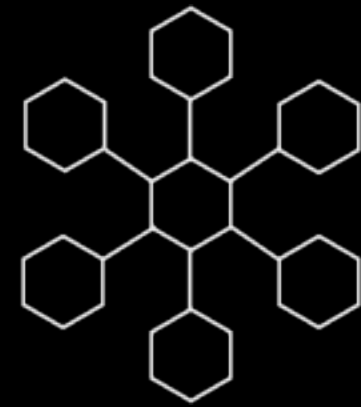


Enterprise

organisations
+
common goals
+
collaboration



value



Architecture

element

relationships

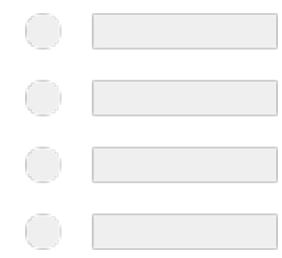
element

+

properties

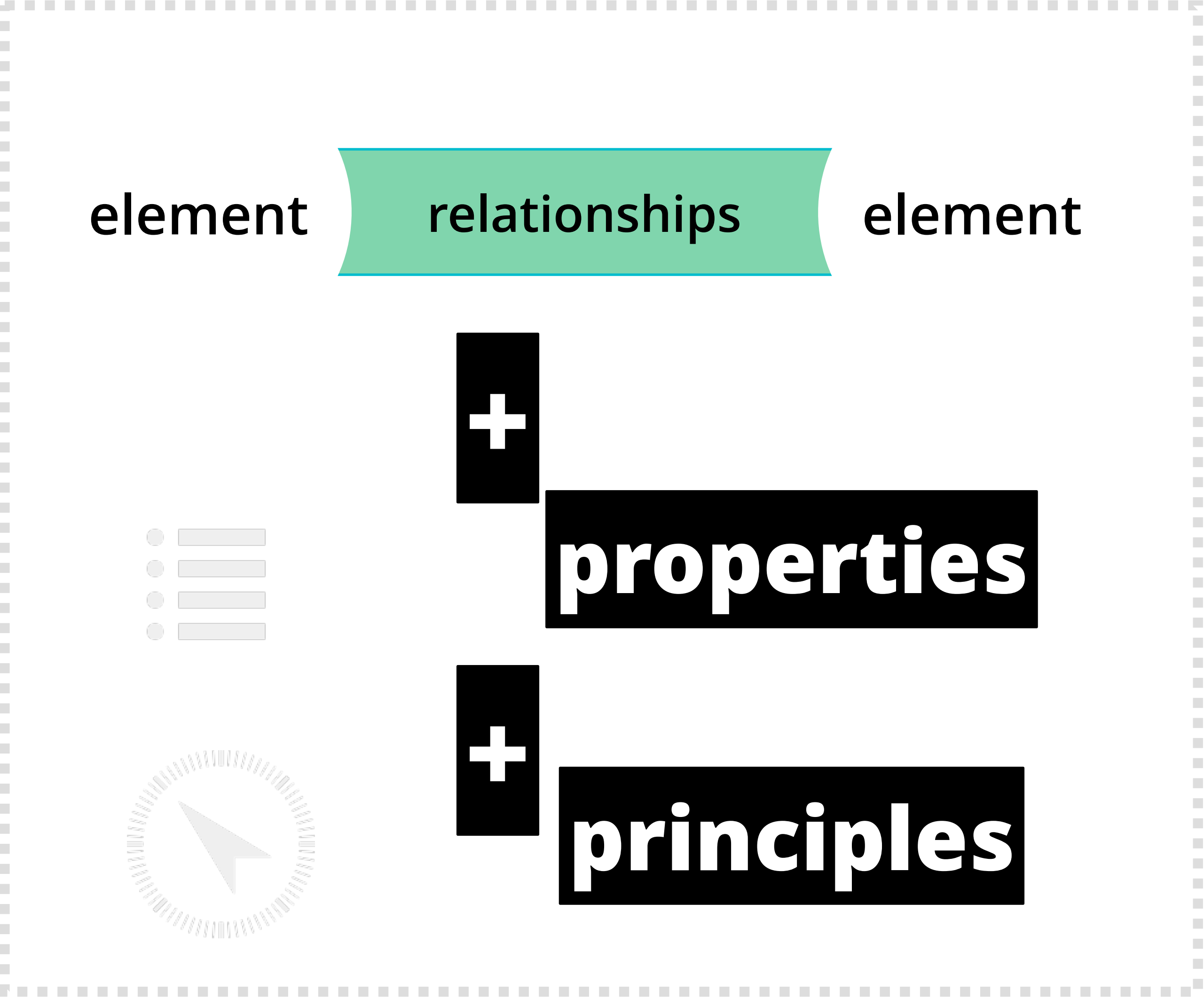
+

principles



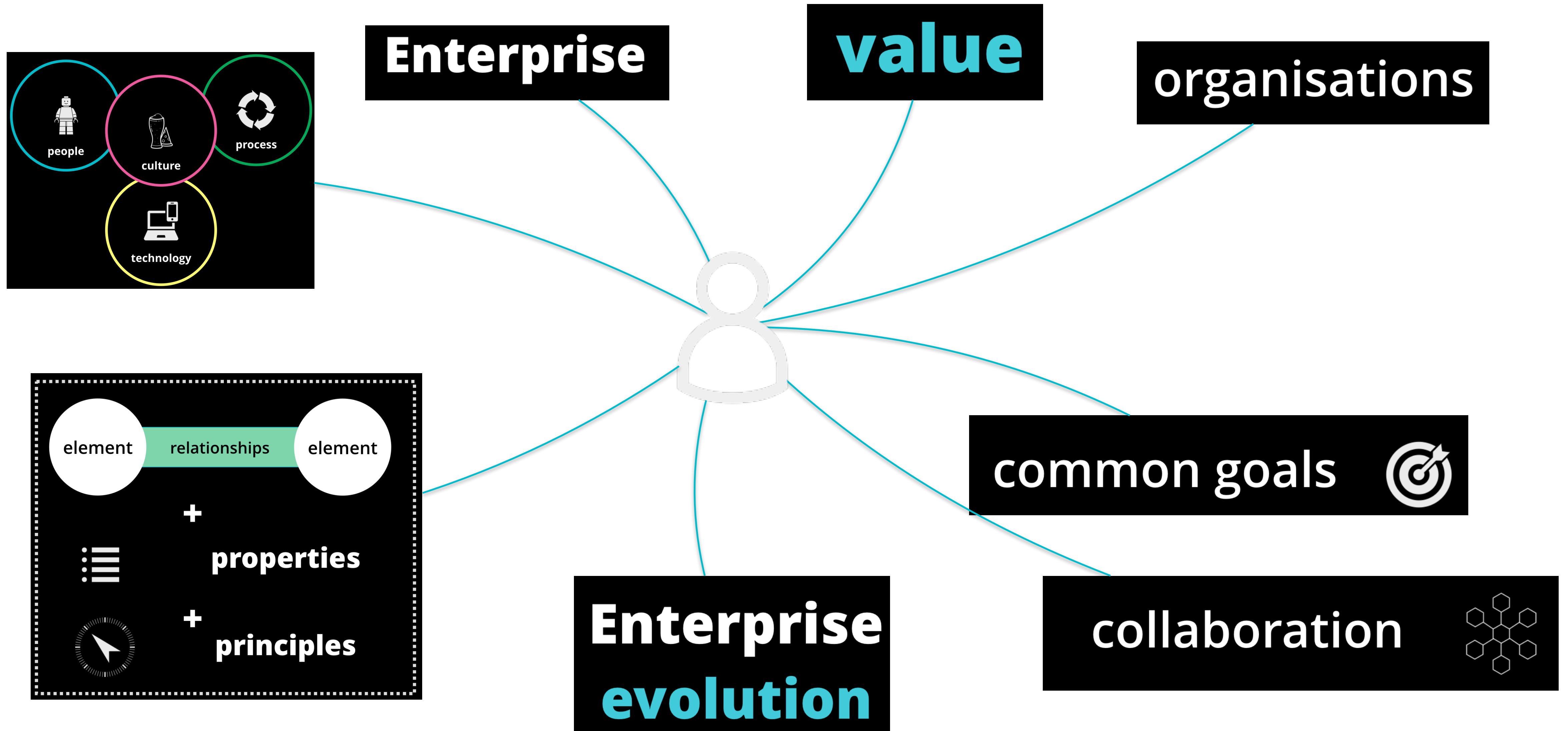
**system
evolution**

Enterprise Architecture



evolution

Enterprise Architect



Enterprise Architect? No



Enterprise Architect? Yes



WHEN I DECIDED TO BECOME AN ENTERPRISE ARCHITECT.....



I had preconceived views about the role:

it would be challenging

**it required complex
decision-making skills**

**you didn't
have to be
that technical**

**the organisation
respects the EA**

**you are there to ensure
the right decisions are
made**

**the role may
get boring
after time**

DISCLAIMER : THIS WAS BACK IN 2007 AND I WAS IN TELCO LAND

Nokia N95 8GB



Mobile Broadband data devices

With a [Mobile Broadband USB modem](#), [Mobile Broadband express card](#) or a [Mobile Broadband data card](#) in your notebook, you can connect to the Internet or your company's LAN via our Mobile Broadband network at speeds you never dreamed possible. All without wires or having to find somewhere to plug in. If you have to be out of the office, you can take the office with you.



Smart devices

HTC Titan

Ultimate connectivity with Mobile Broadband, WiFi and Bluetooth the Titan offers full PDA features in a stylish form factor.



Treo 700wx

The Treo™ 700wx smartphone delivers everything you need without compromise - power, elegance and Palm's famous ease of use on the Windows Mobile® platform.



Cyberbank Triton 880 and 1880

The ultimate tool for hard-working conditions, the durable Cyberbank Triton 880 and 1880 are designed with business in mind.

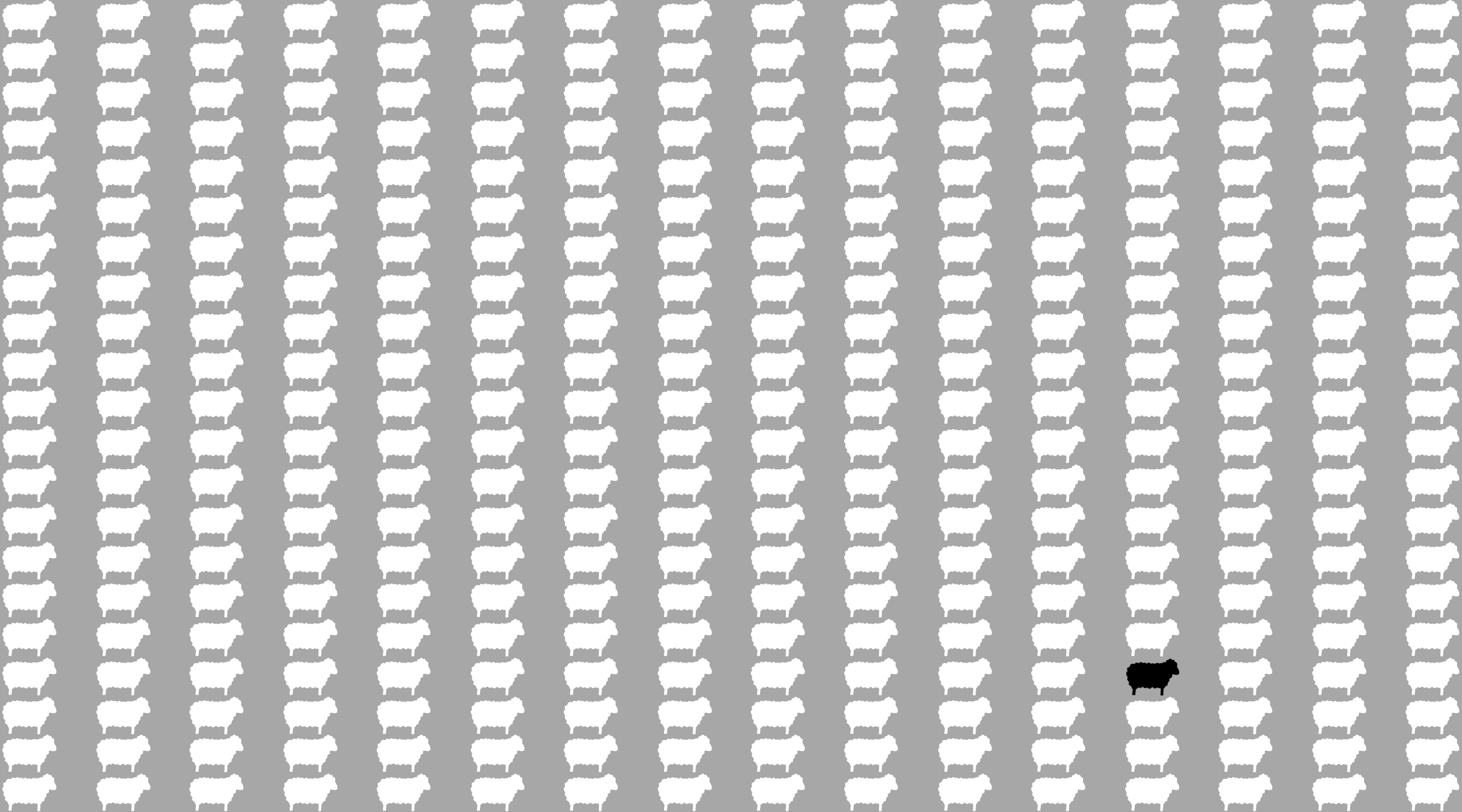
The barcode scanner model (1880) has the additional capacity to capture barcode product information so you can minimise the paperwork.



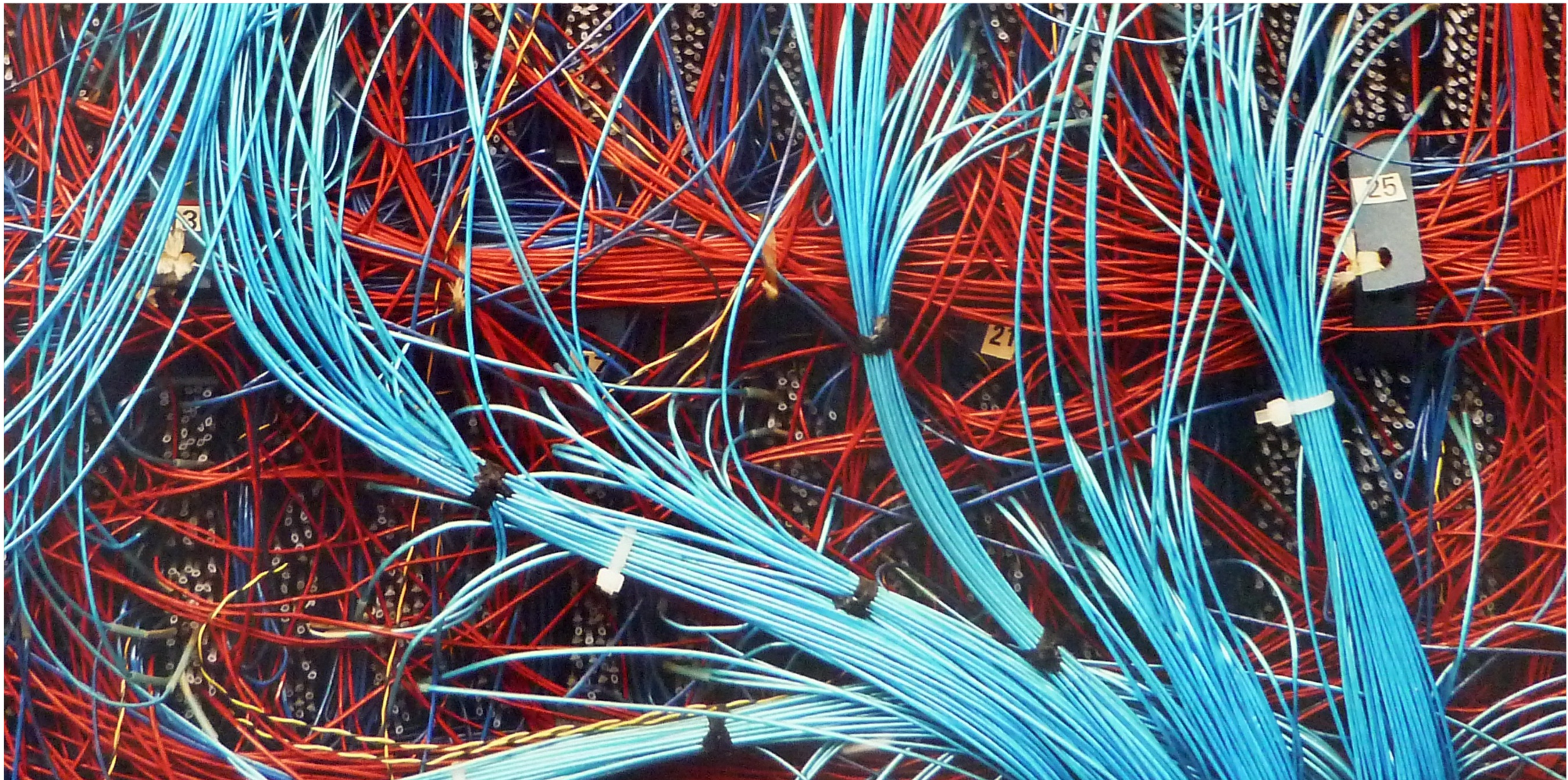
CONFESSIOIN I : I CAN'T CODE FOR TOFFEE



CONFESSION II : I DON'T APPEAR TO BE LIKE THE "AVERAGE" EA

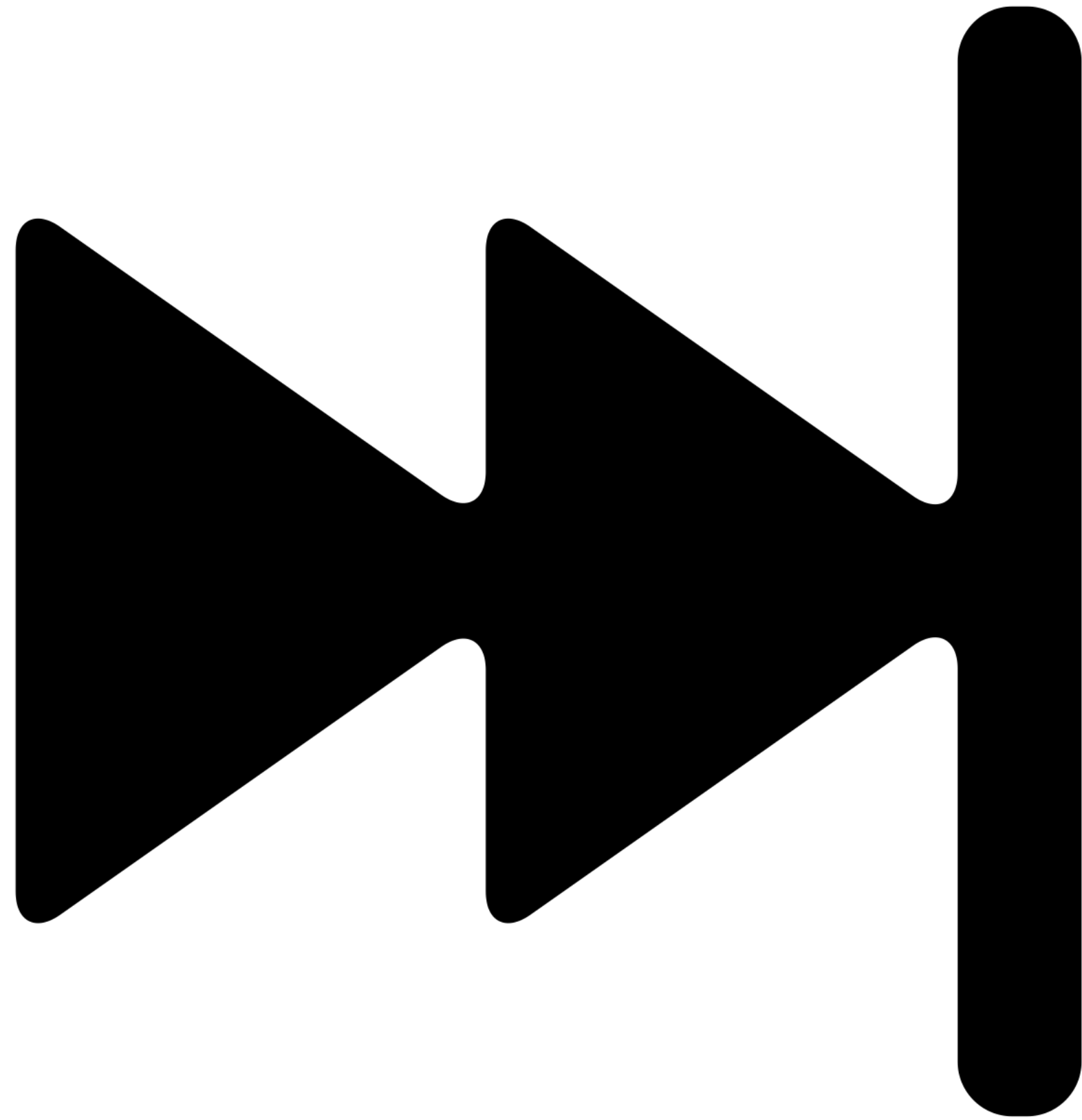


CONFESSION III : I'M AN INFRASTRUCTURE GUY

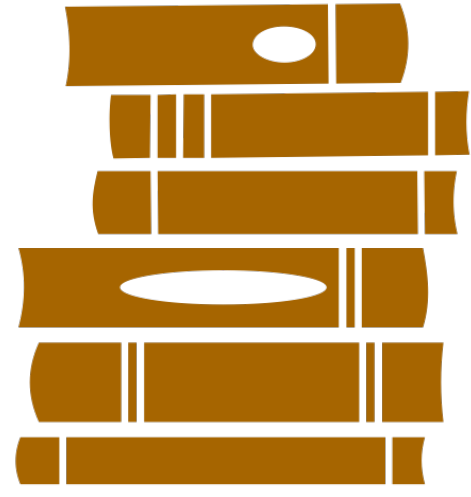


CONFESSION IV : I'M AN INTROVERT





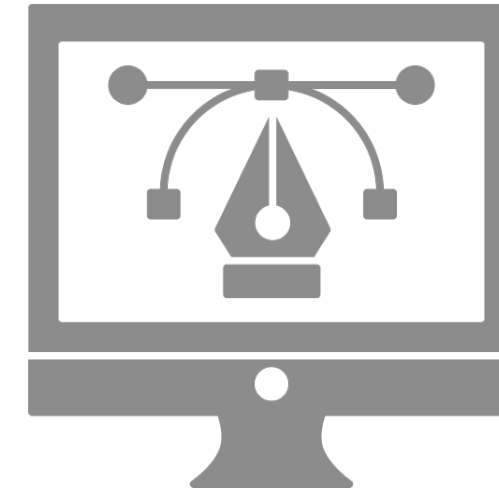
DURING MY 10 YEARS OF ARCHITECTOLOGY.....



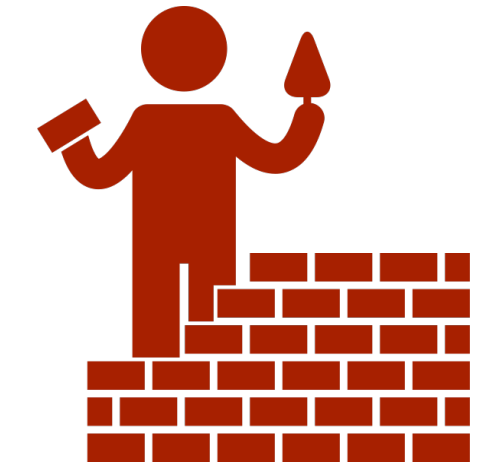
I've read



I've travelled



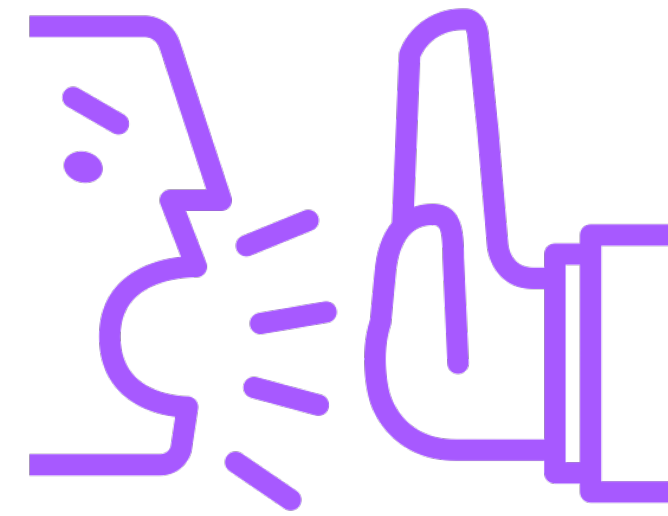
I've designed



I've built



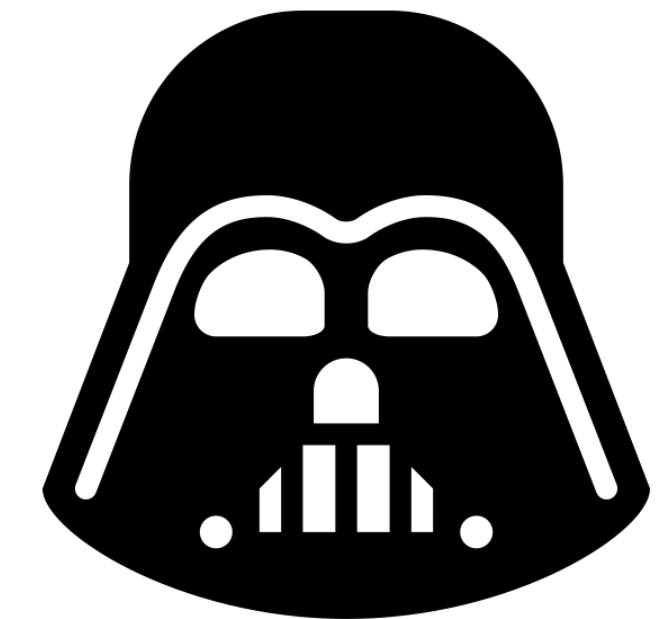
I've rescued



I've listened



I've talked



I've remained sane

AND.....



I'VE SURVIVED WITHOUT HAVING TO CODE!

MY GOAL HAS BEEN TO **DIVERSIFY**



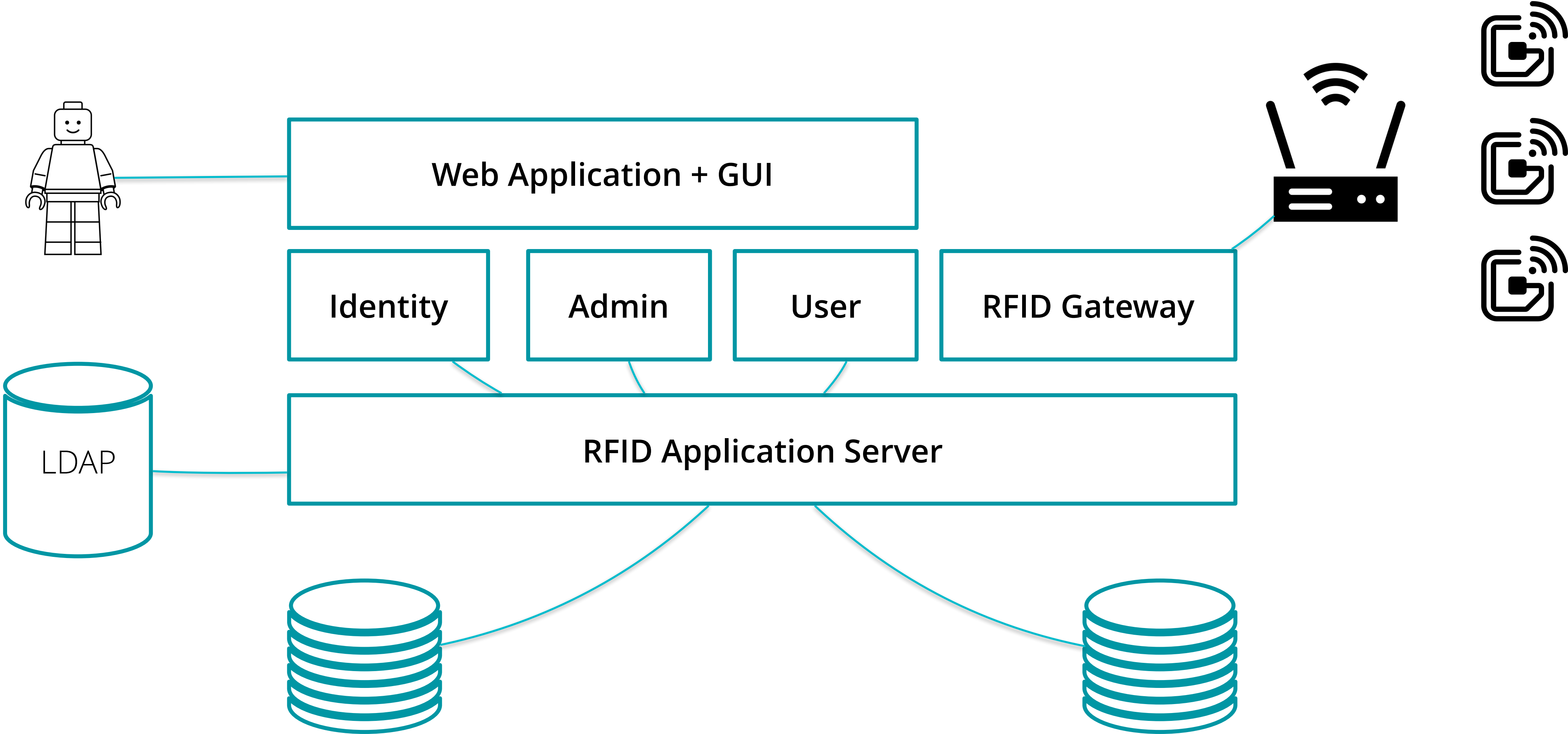
DO WHAT YOU NEED



DO WHAT YOU WANT

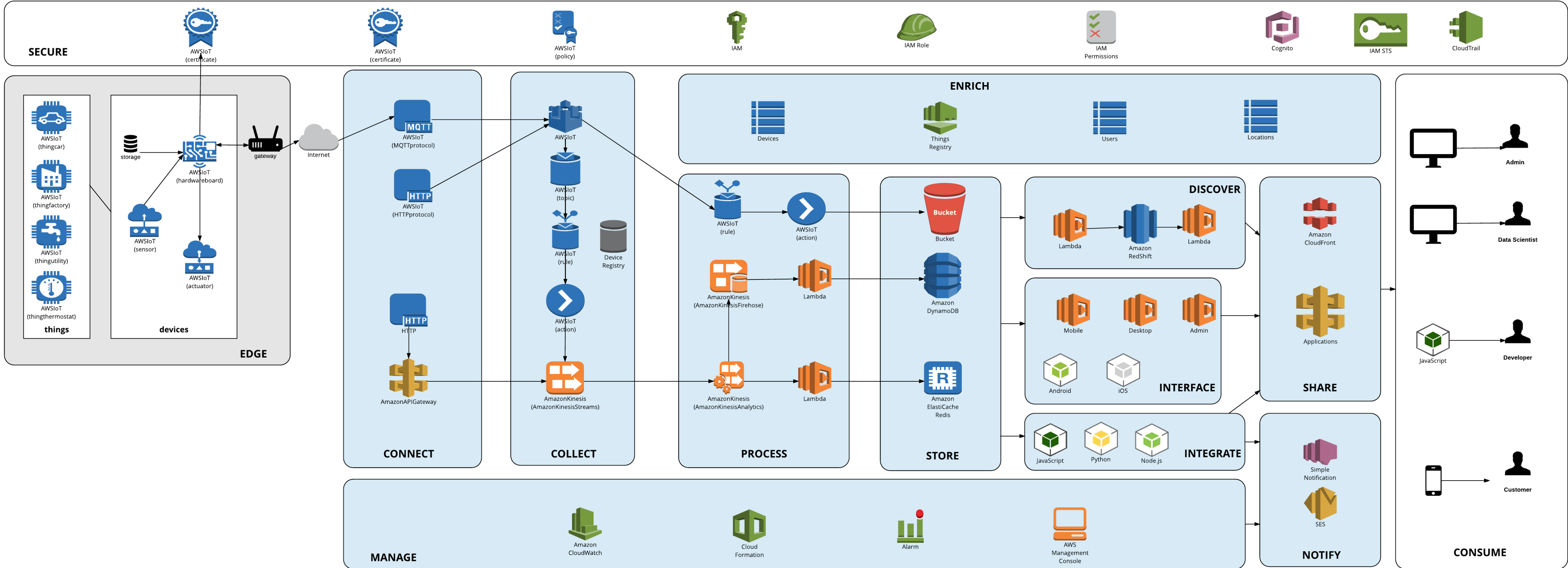
BUT, TECHNOLOGY HAS BECOME EXPONENTIALLY MORE COMPLEX COMPARED TO 10 YEARS AGO.....

RFID Reference Architecture Circa 2007



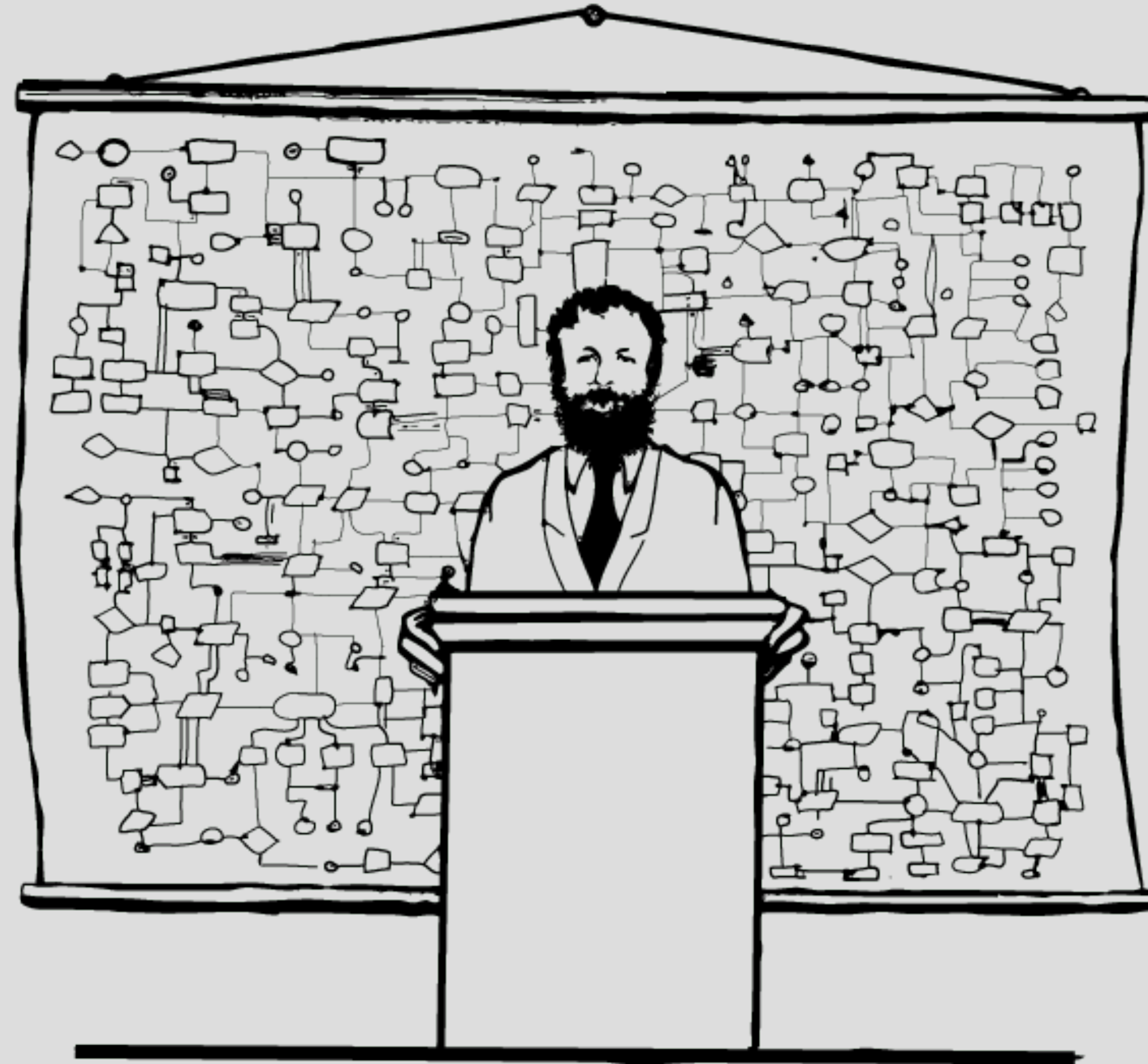
TECHNOLOGY HAS BECOME EXPONENTIALLY MORE COMPLEX COMPARED TO 10 YEARS AGO.....

IoT AWS Reference Architecture Circa 2017



YET, DESPITE OUR HARD WORK, I THINK WE HAVE AN IMAGE PROBLEM

ENTERPRISE ARCHITECTURE

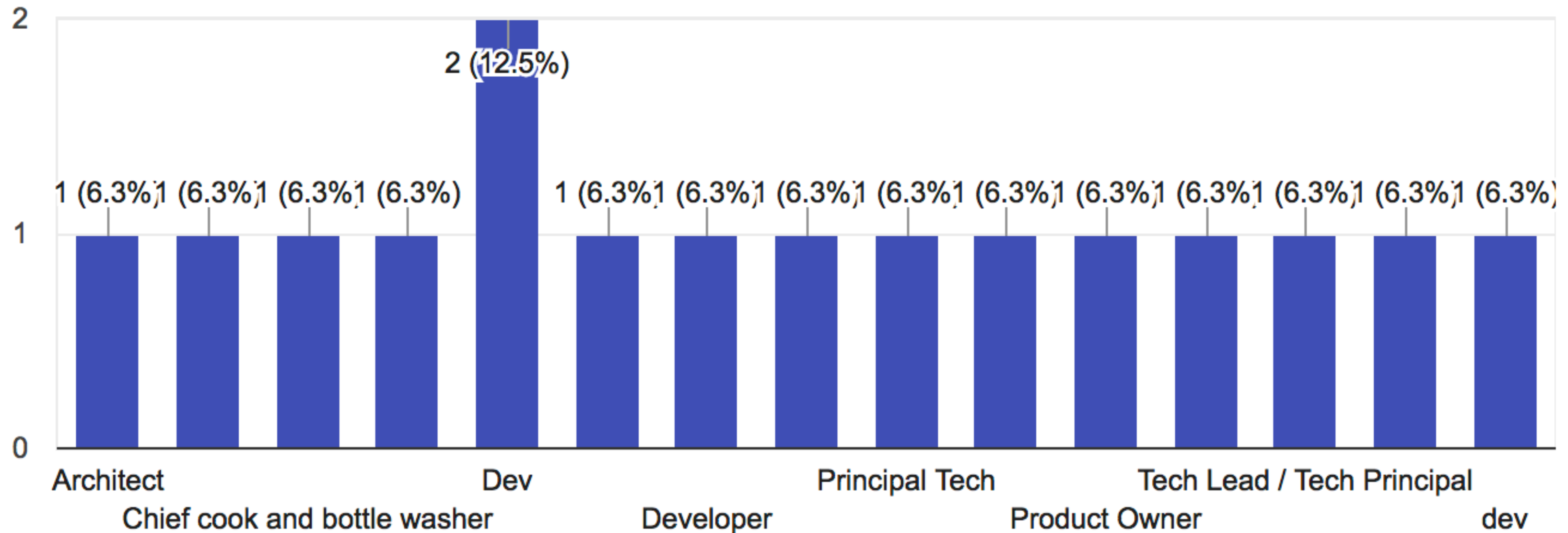


“Now that you have an overview of the system,
we’re ready for a little more detail”

I ASKED THOUGHTWORKERS SOME QUESTIONS ABOUT THIS.....

What is your current role? e.g Developer, QA, XD etc.

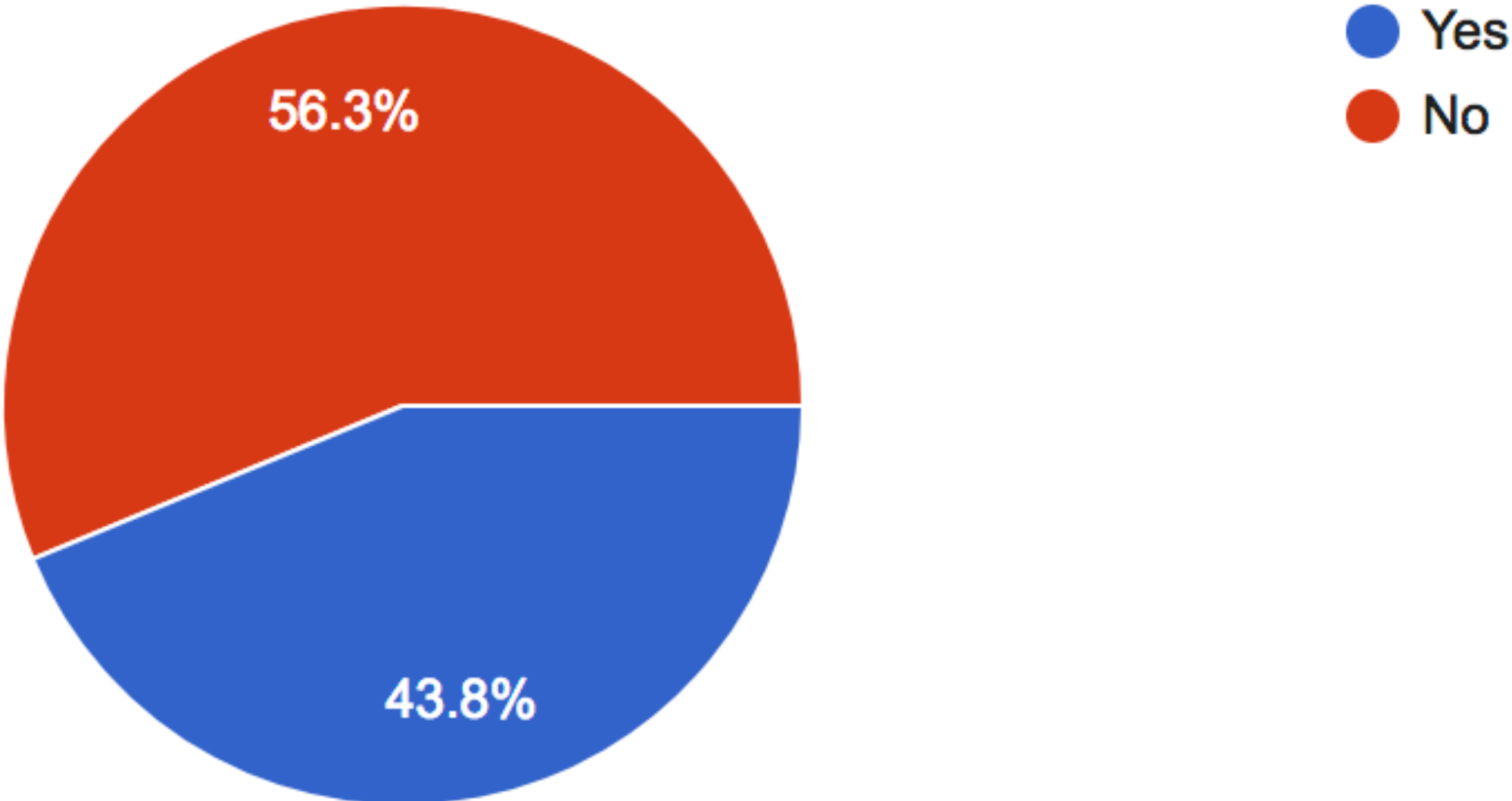
16 responses



WHO HAD DIFFERENT EXPOSURE TO THE WORLD OF THE EA

Are you or have you even been described as an Enterprise Architect?

16 responses



HERE IS WHAT THEY SAID....

AS CONCISELY AS POSSIBLE, HOW WOULD YOU DESCRIBE WHAT YOU THINK AN ENTERPRISE ARCHITECT DOES?



AS CONCISELY AS POSSIBLE, HOW WOULD YOU DESCRIBE WHAT YOU THINK AN ENTERPRISE ARCHITECT DOES?

Standards,
verification after
the fact

Powerpoint
slideware
implementations.

Obsolete,
unnecessary,
removed, lacking
detail

Good ones -
pragmatic advocate
for the long term. Bad
ones - disconnected
technology dictators

City planning vs.
building planning.

Post-Technical
decision
bottleneck

Depends. In many cases the
word might be 'detached' but
that might be developer
perception when they lack
the big picture, could also be
that they are actually
detached!

Box drawer,
impractical, head
in the clouds, *sigh

30k ft view of technology,
interoperability of
systems, integration of
systems, product
architecture

Last Line of
Defense, Tiebreak
Decision Maker

Ivory Tower,
control freak, out
of touch with
developers

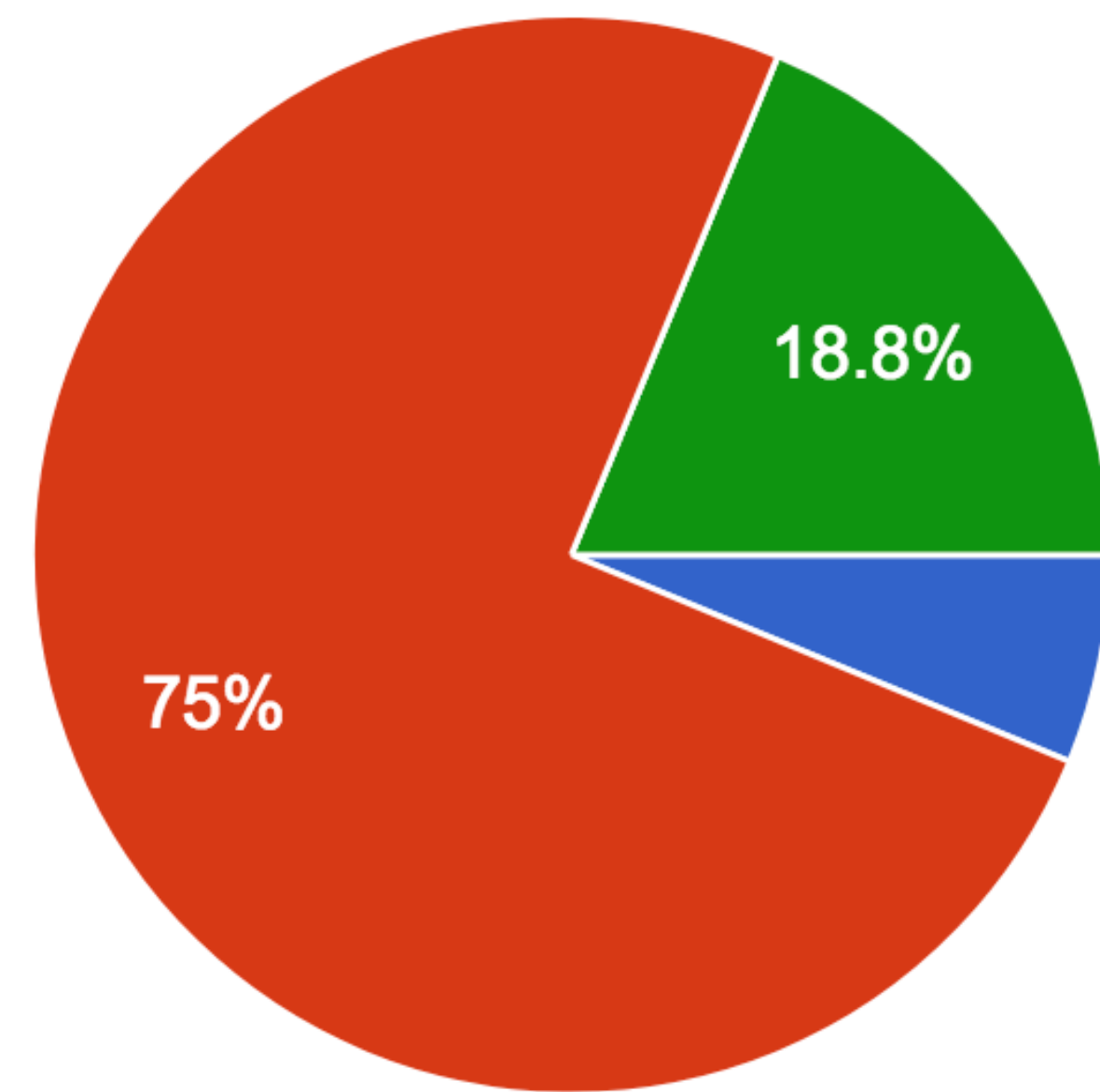
Architectology, legacy,
silos, Anti-Pattern,
slow progress, lack of
empowerment, no
customer focus.

Yeah, the Ivory Tower one
for sure. I'd also add
Governance, Risk
Management, Programme
Management

Old School vs New
School

KAPOW!!!

DO YOU BELIEVE THAT THE ENTERPRISE ARCHITECT HAS A ROLE IN THE FUTURE OF SOFTWARE DESIGN FOR THE ENTERPRISE?



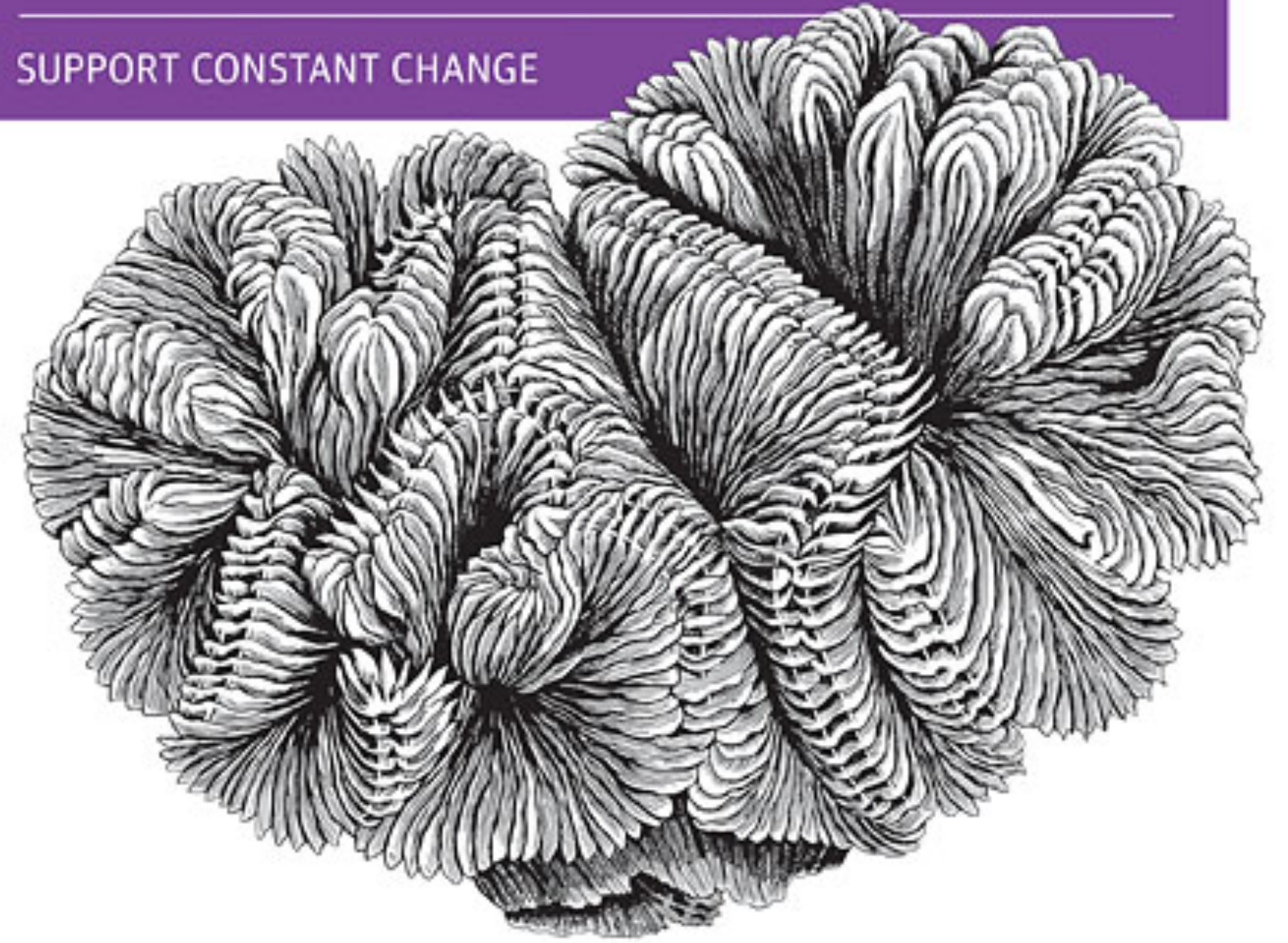
- Yes. We will always need EAs as long as the sun continues to shine.
- Yes but the role of an EA as we now understand it will evolve into something very different.
- Really couldn't say either way.
- No. You are joking. Enterprise Architects will go the way of the dinosaurs.

MEANWHILE, THERE HAS
BEEN A GREAT DEAL OF
WORK LOOKING INTO THE
ARCHITECTURE
CHALLENGE

O'REILLY®

Building Evolutionary Architectures

SUPPORT CONSTANT CHANGE



Neal Ford, Rebecca Parsons & Patrick Kua

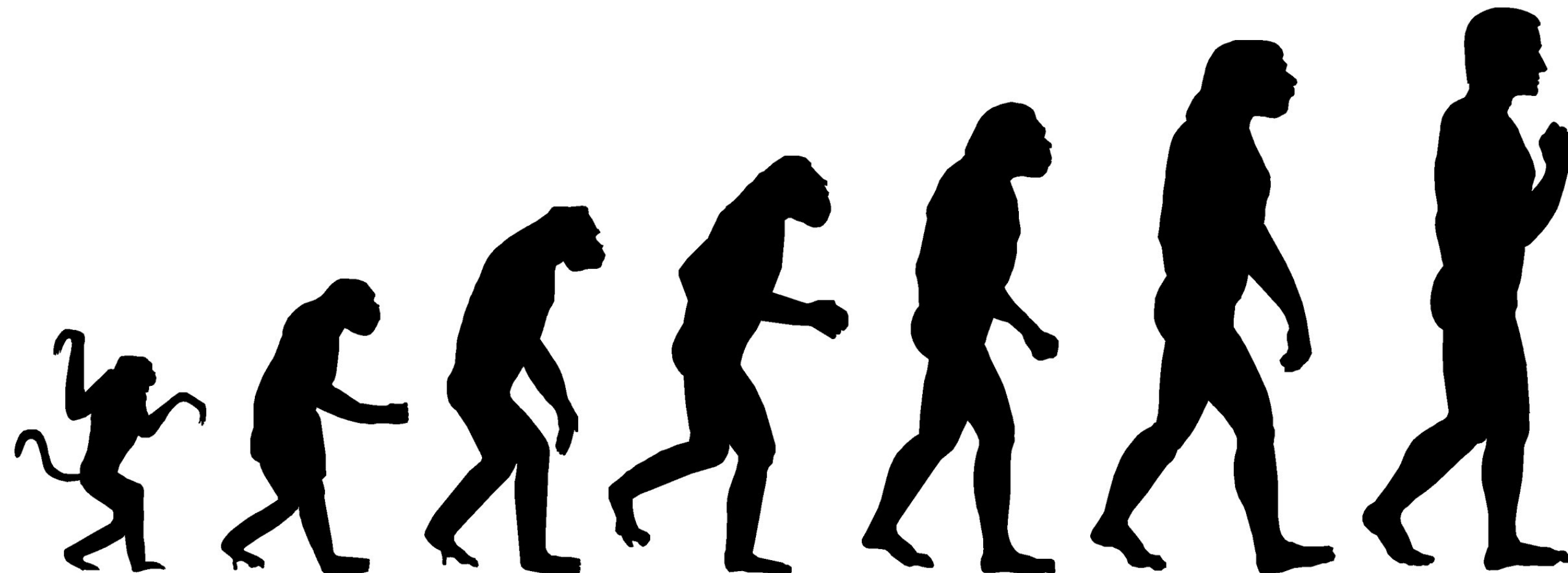
THOUGHTWORKS APPROACH TO ARCHITECTURE

Evolutionary architecture means keeping your “North Star” end state in mind while constantly adapting to emerging technology and business changes.

Avoids “analysis paralysis” by making lots of small decisions you are confident about instead of fewer big decisions that are basically high-stakes informed guesses.

Forces you to prioritise adaptability as a first-class design concern.

Means you treat any individual piece of code or component as disposable



**“the only thing that is constant is
change”**

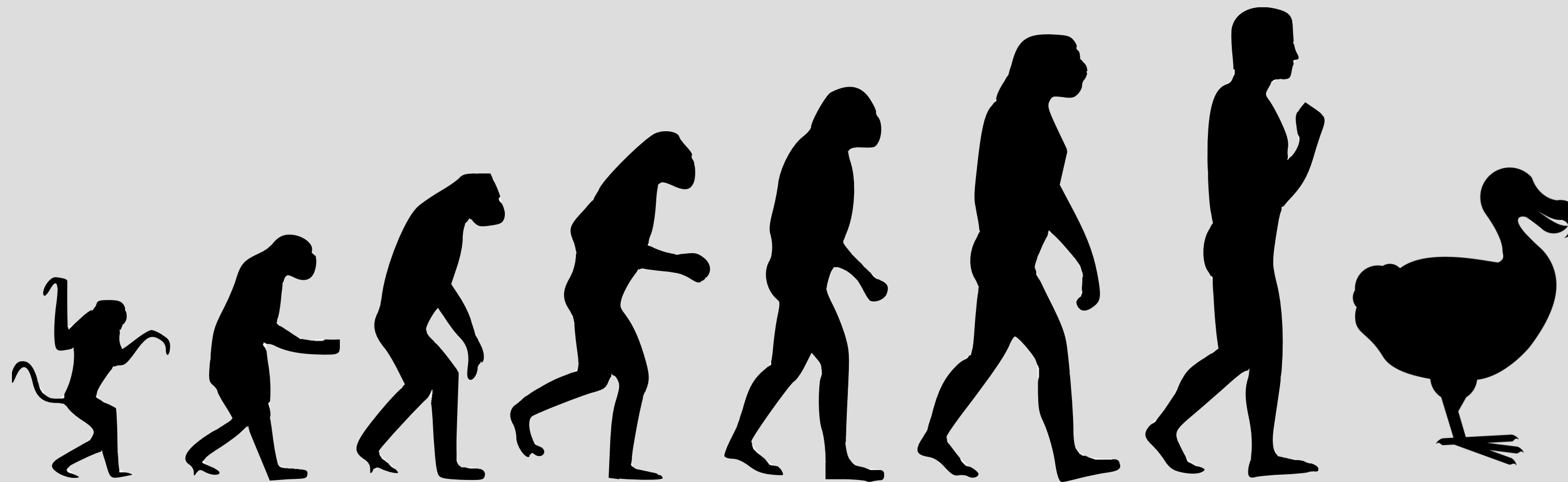
Heraclitus

“It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change”

Charles Darwin?

**ALL THIS IS GREAT BUT WHAT DOES
IT MEAN TO ME AS AN ARCHITECT?**





WE NEED TO EVOLVE BEFORE WE BECOME EXTINCT



WE ARE THE DUCK-BILLED PLATYPUS OF THE IT WORLD

SO, THE ARCHITECT'S ROLE GETS MORE CHALLENGING :

**MORE USERS DEMANDING MORE
FEATURES IN LESS TIME FOR LESS COST**

**MORE PEOPLE ARE INVOLVED IN COMPLEX DECISION
MAKING DEALING WITH MORE TRADE-OFFS THAT REQUIRE
GREATER ARCHITECTURAL VISIBILITY**

**SO AS ARCHITECTS WE ARE FACED WITH EVER
INCREASING COMPLEX DEMANDS WITH LESS
TIME TO RESPOND AND MORE AMBIGUITY**

HERE IS A SUGGESTION FOR A LIGHTWEIGHT FRAMEWORK TO PROVIDE CLARITY TO ARCHITECTS

I HAVE COINED IT :

T

THOUGHTWORKS

A

ARCHITECTURE

L

LEAN

C

CANVAS

Domain Problems

- business not aligned to technology
- failed projects
- legacy technology debt
- cultural resistance to change
- blame culture
- no documentation
- architecture have limited authority
- no alignment on architectural description
- data quality issues
- lack of decision making governance

Solutions

- fix business<->tech alignment
- reduce technical debt
- improve documentation
- improve decision making

- documentation review
- facilitation workshops
- architecture design

Activities

Tools & Techniques

Architectural Description		
ArchiMate 3	Archi	Capability Based Planning
OmniGraffle	House of Quality	Domain Driven Design

Enterprise Architects	Lead Developer	DevOps
IS Security	Infrastructure Owner	
Software Vendors		

Stakeholders

- technology roadmap
- Lightweight Architecture Decision Template (LADR)
- reference architecture

Deliverables

Desired Outcomes

- agile business
- adaptive technology platform
- resilient technology services
- aligned company culture
- innovative culture

- reduced sprint cycle times
- lower defect rate
- increased availability
- reduced time to fix defects
- improved customer satisfaction score

Measures

- | | | | |
|----------------------------|---------------------------|---------------------------|--------------------|
| iterative over waterfall | evolutionary architecture | capability based planning | lean documentation |
| simplicity over complexity | lightweight decisions | fitness functions | reuse always |

Principles

- | | | | |
|-------------------|---------------------|--------------------------|----------------------------|
| mutual respect | embrace change | be willing to take risks | honesty and openness |
| everyone is equal | be willing to share | outcomes over effort | collaboration not conflict |

Behaviours

EVOLUTIONARY ARCHITECT TRAITS

**systems
thinker**

trusted

innovative

enabler

**technical
passion**

**open-
minded**

inventive

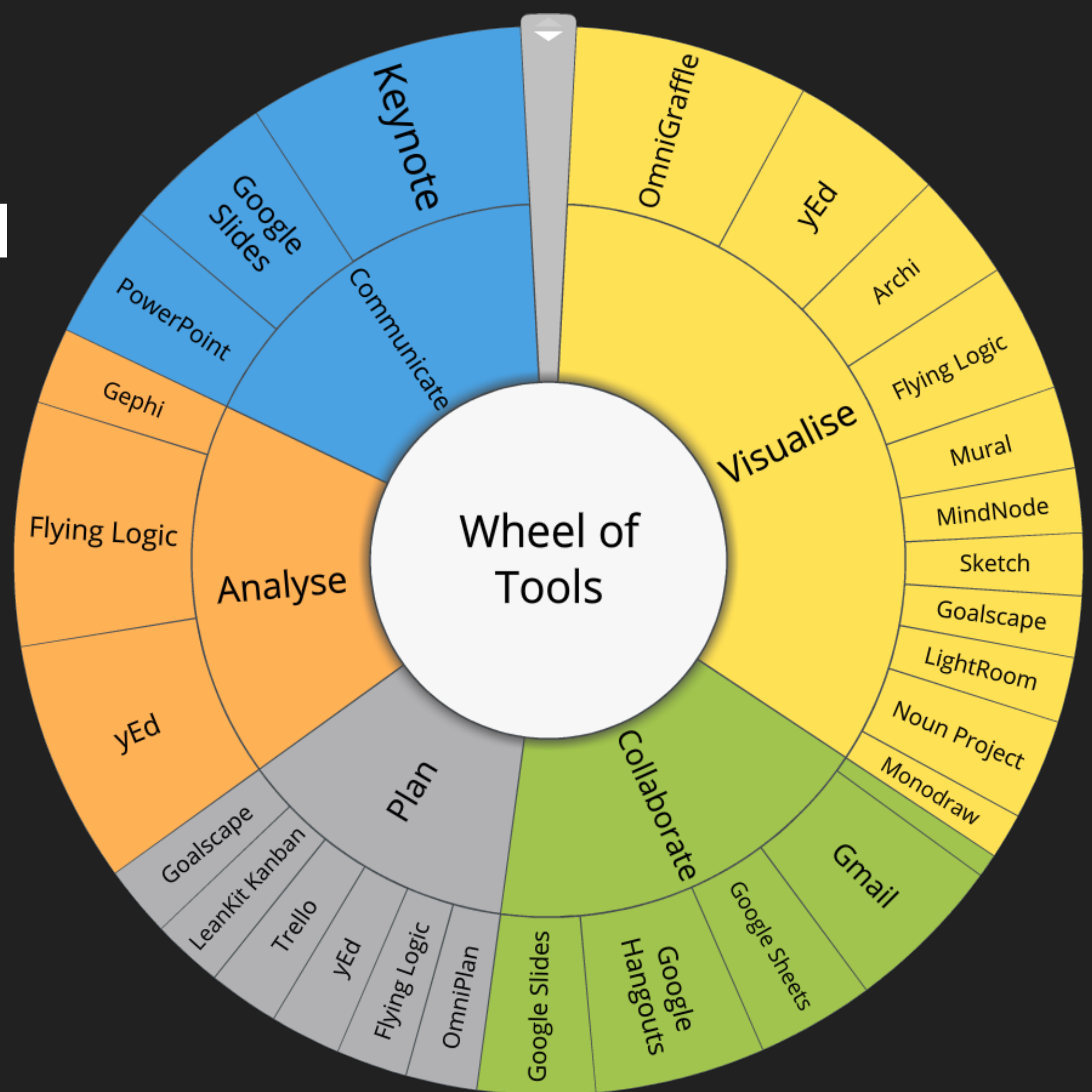
visual

**decision
thinker**

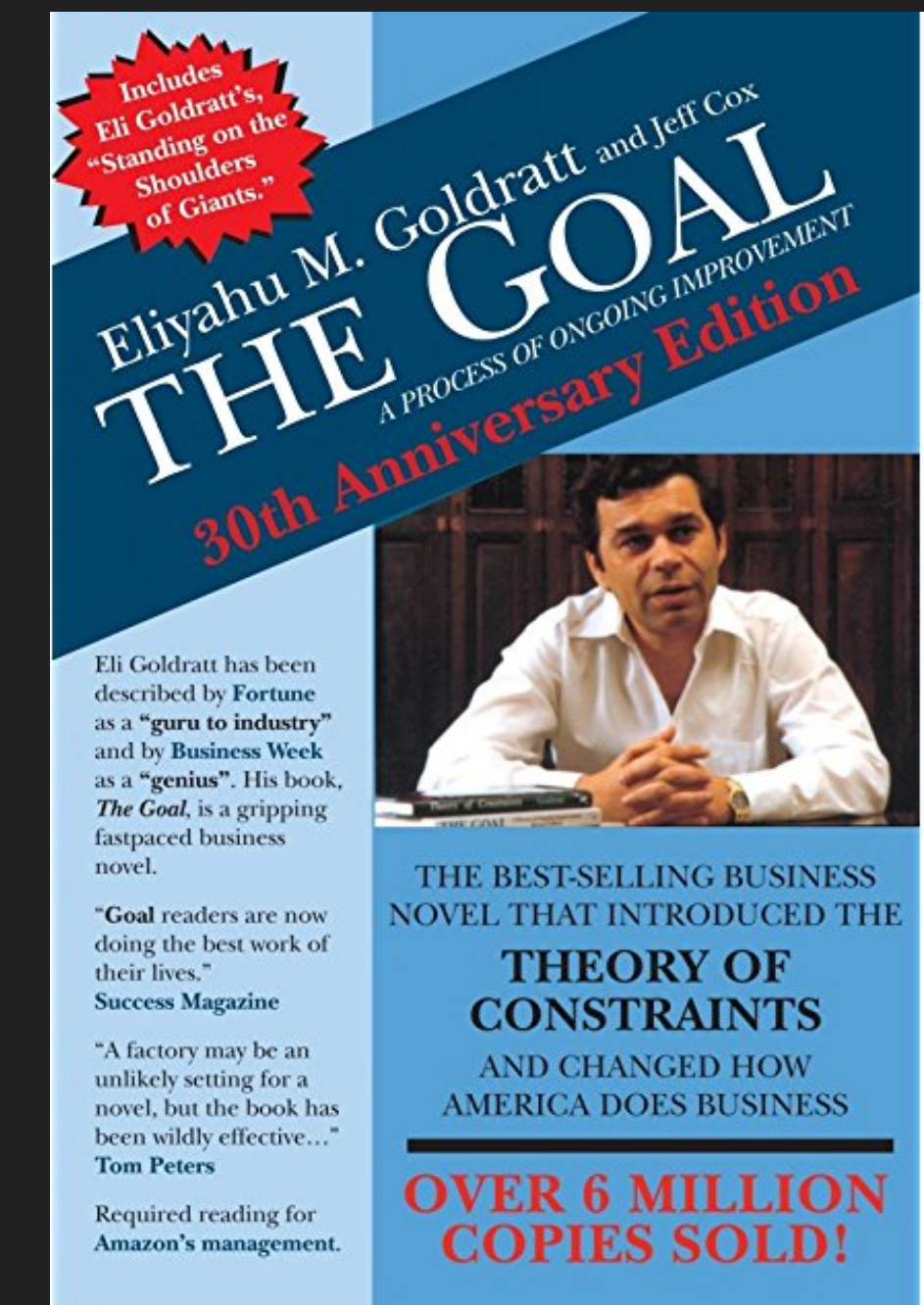
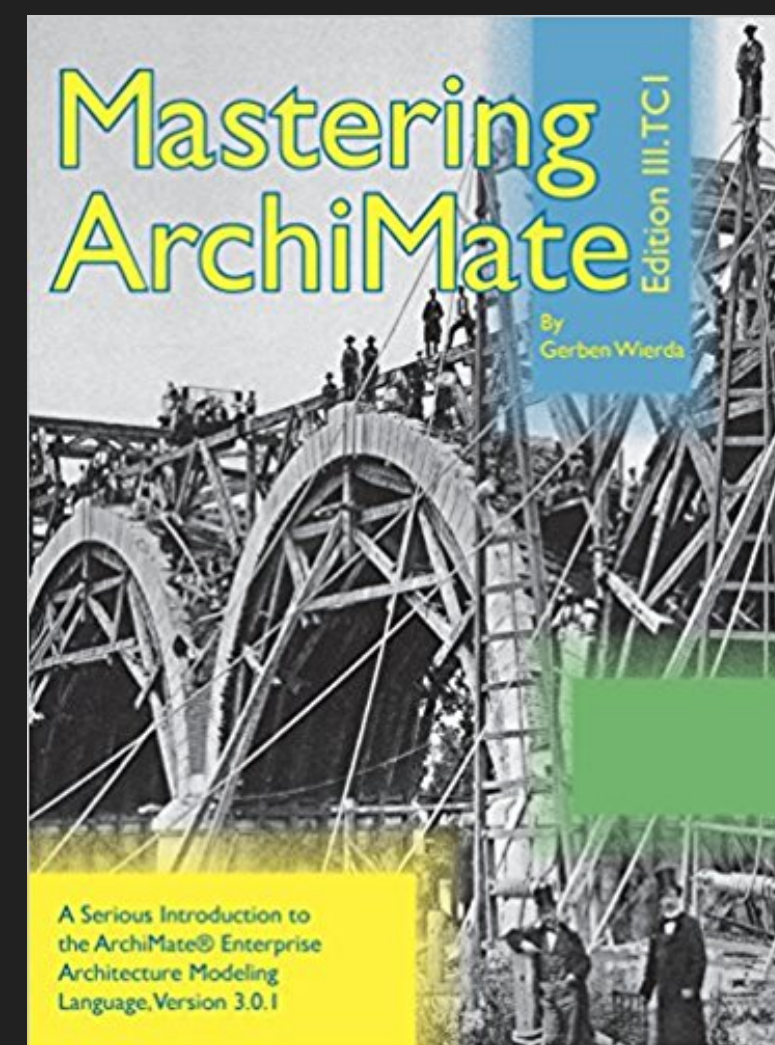
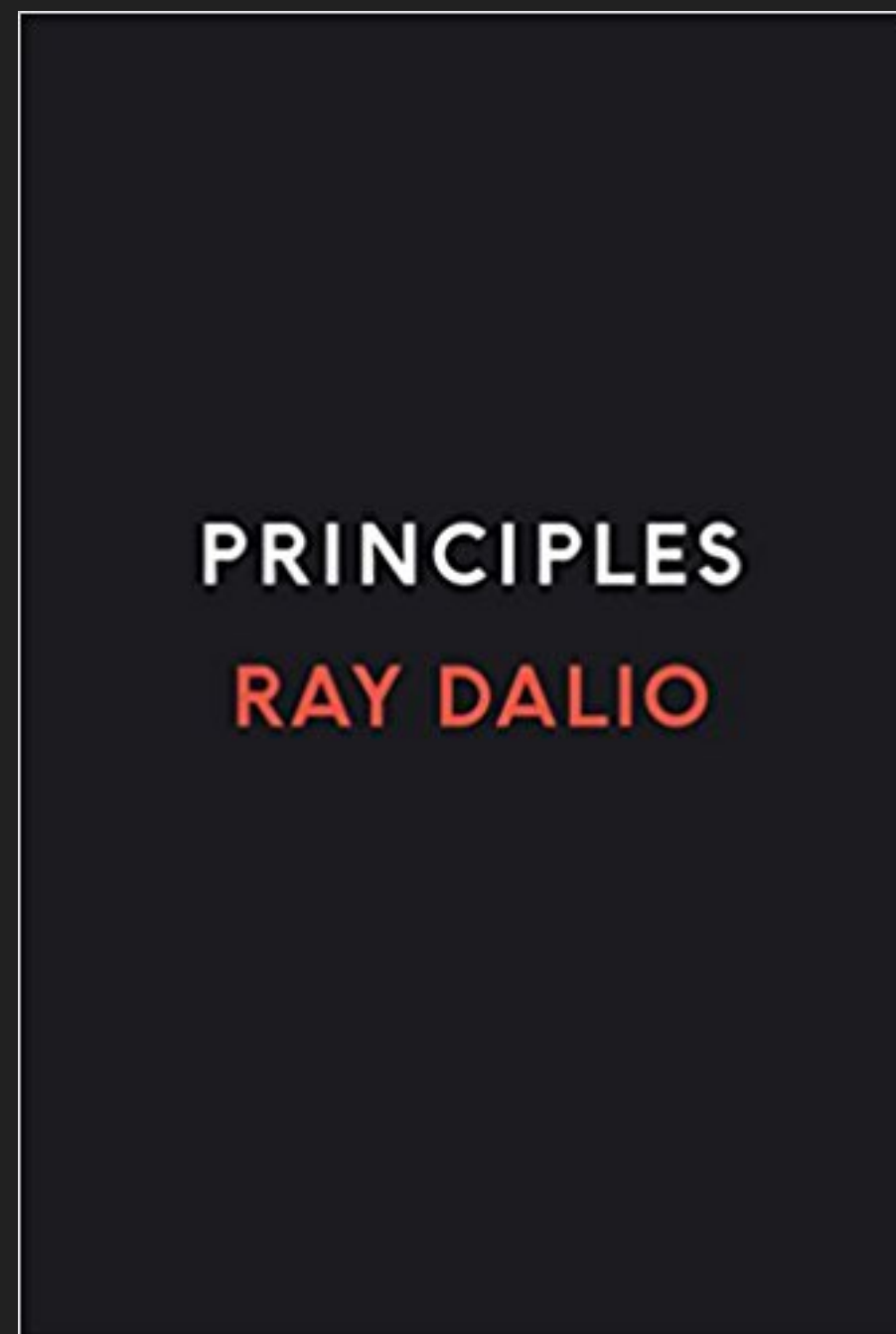
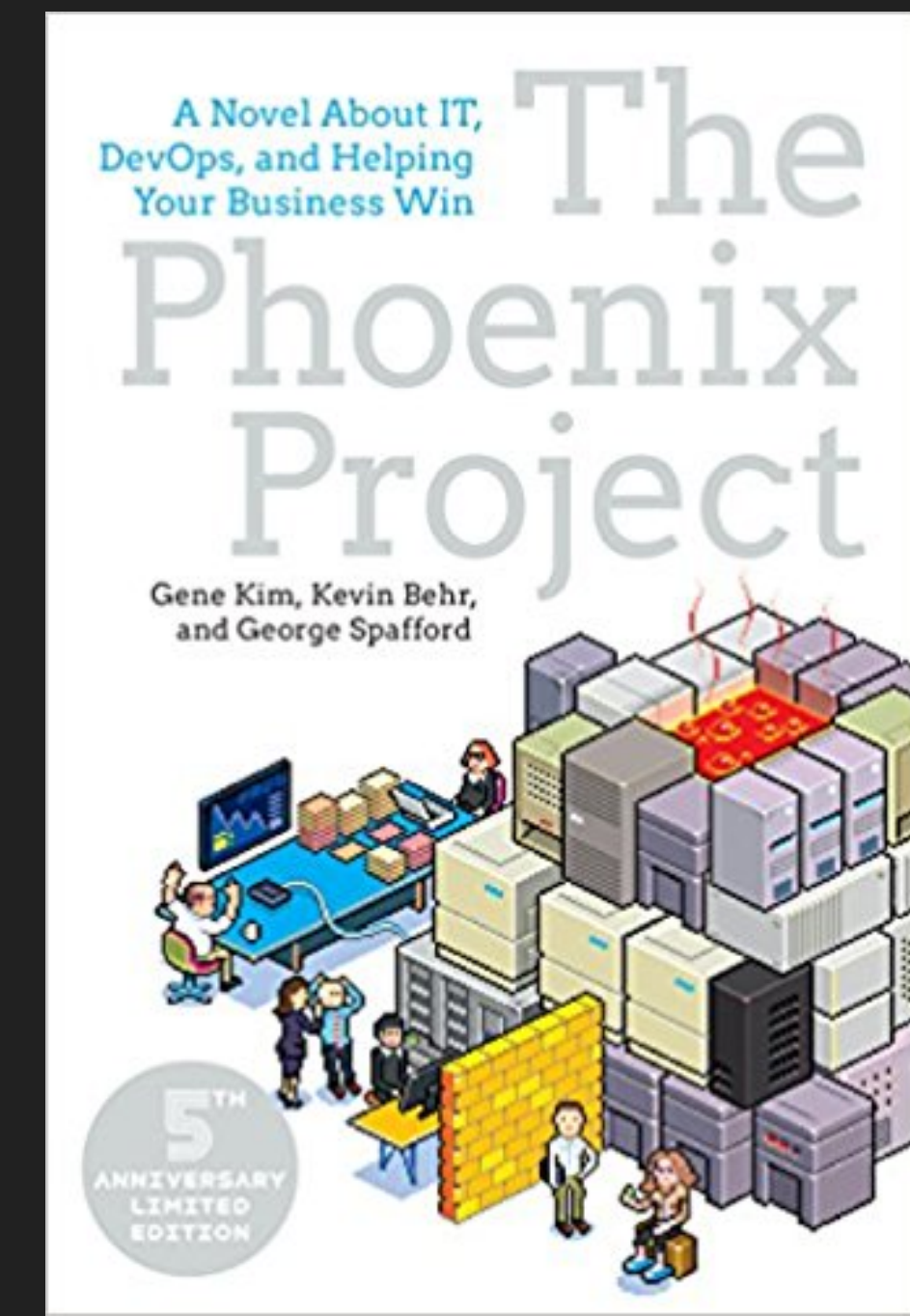
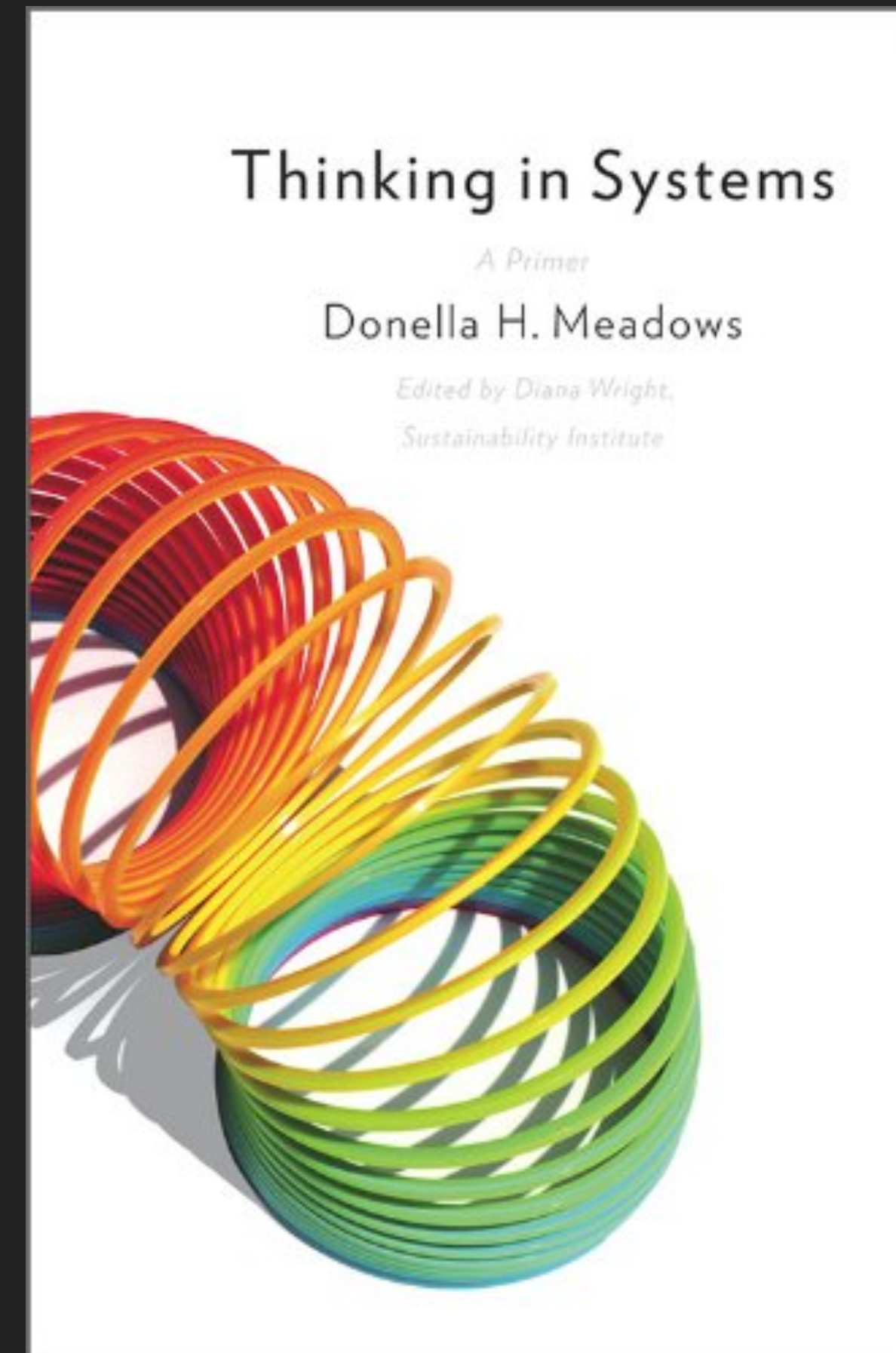
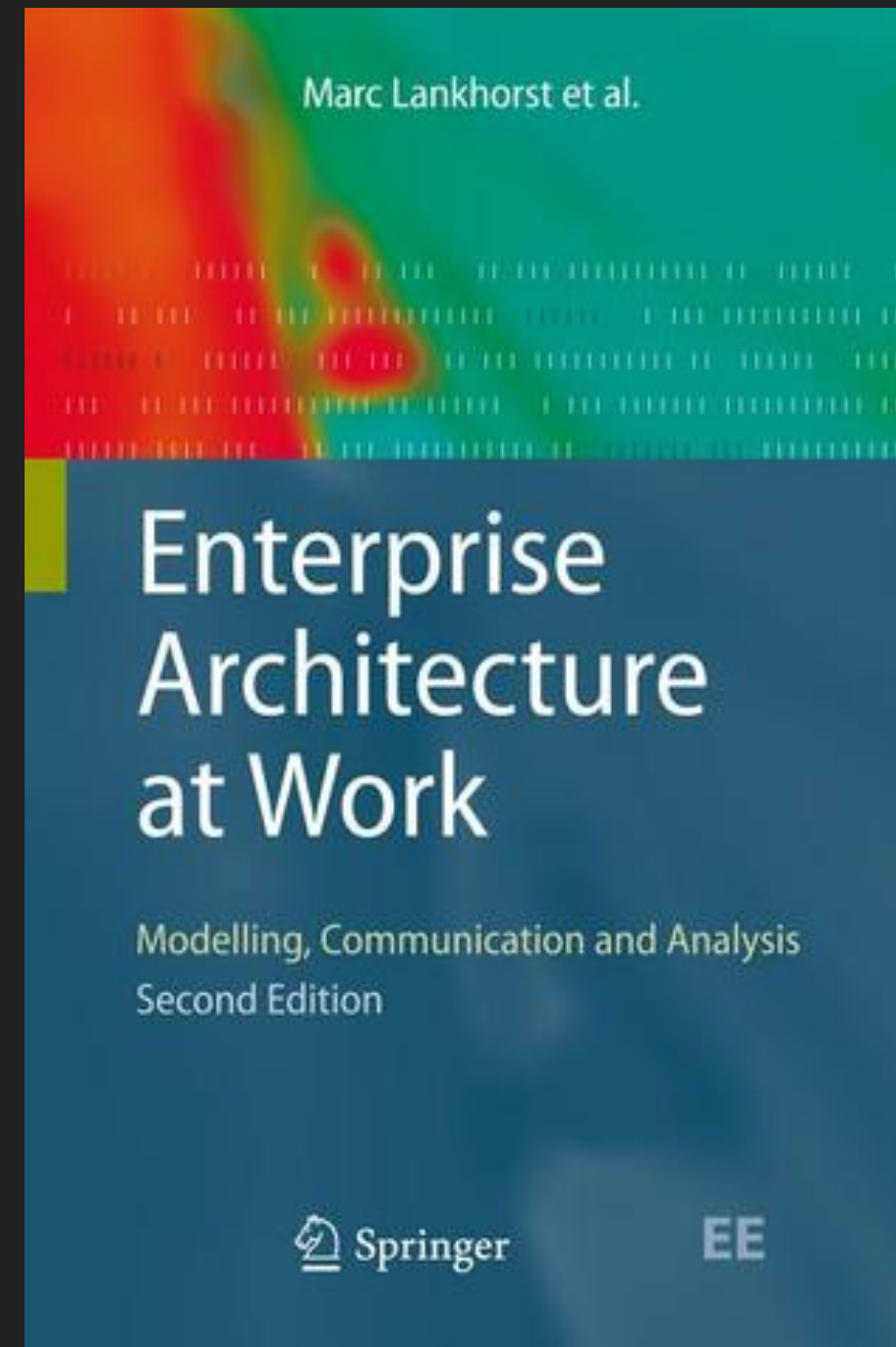
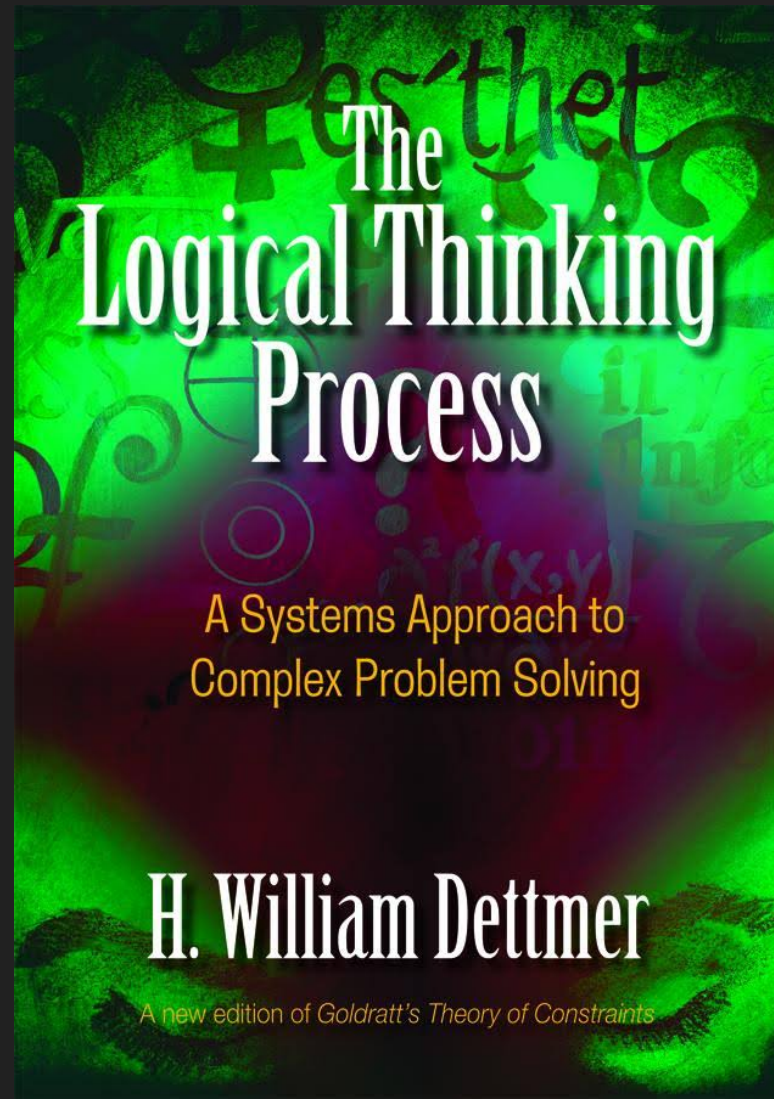
I OFTEN GET ASKED....

**WHAT TOOL DID YOU
USE FOR THAT?**

**SO I PRODUCED A
"WHEEL OF TOOLS" I
USE REGULARLY**



AND SIMILARLY MY READING LIST....



CLOSING THOUGHTS...

FUNDAMENTALLY, WHAT WE NEED IS TO ENABLE:

**ARCHITECTS TO HAVE A CLEARER VIEW OF THEIR ROLES
AND EXPECTATIONS**

IMPROVED VISIBILITY OF THE TECHNOLOGY LANDSCAPE

IMPROVED AND TRANSPARENT DECISION-MAKING

**AGREEMENT ON RECOMMENDED TOOLS AND
FRAMEWORKS**

OUR VISION OF AN EVOLUTIONARY ARCHITECTURE
CAN ONLY HAPPEN IF WE HAVE THE **RIGHT PEOPLE**

ALL ENGINEERS FROM ALL DISCIPLINES
SHOULD BE **ALLOWED TO CONTRIBUTE**

EVOLUTIONARY ARCHITECTURE SHOULD BE THE
RESPONSIBILITY OF THE **MANY, NOT OF THE FEW**

ARCHITECTURAL DECISIONS WILL BE MADE IN A
LIGHTWEIGHT WAY WHERE THE OUTCOMES ARE **MEASURABLE**

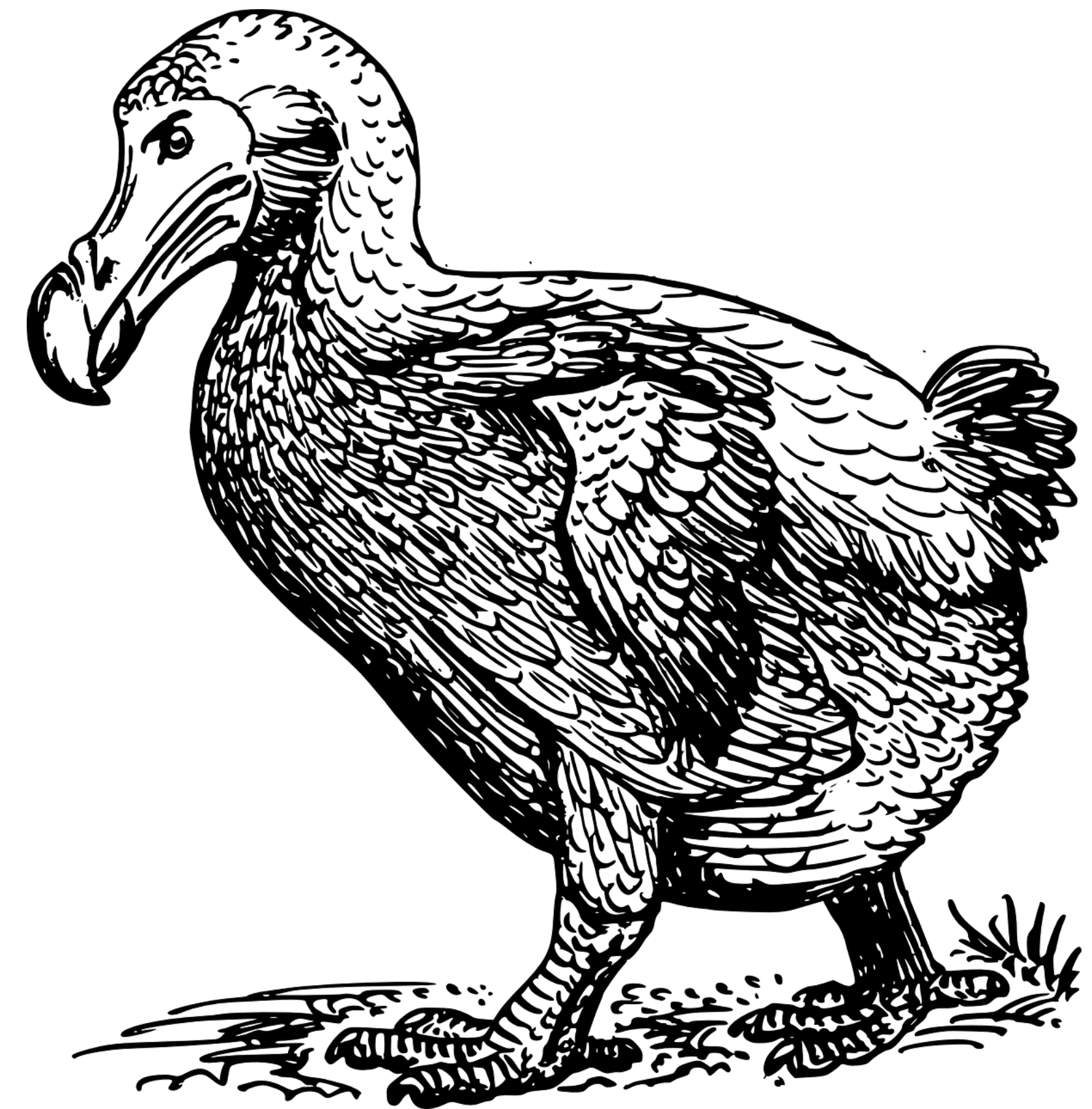
SO WHAT HAPPENS TO THE ENTERPRISE ARCHITECT?



**ENTERPRISE ARCHITECTS WILL
STILL BE AROUND FOR A WHILE YET**

**THE GOOD ONES WILL EVOLVE INTO
SOMETHING COMPLETELY
DIFFERENT**

AS FOR THE REST, EVENTUALLY.....





THANK YOU

TOM GLOVER

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@thomasglover

